

RTBfoods Step 2: Gendered food mapping

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Ethics: The activities, which led to the production of this manual, were assessed and approved by the CIRAD Ethics Committee (H2020 ethics self-assessment procedure). When relevant, samples were prepared according to good hygiene and manufacturing practices. When external participants were involved in an activity, they were priorly informed about the objective of the activity and explained that their participation was entirely voluntary, that they could stop the interview at any point and that their responses would be anonymous and securely stored by the research team for research purposes. Written consent (signature) was systematically sought from sensory panelists and from consumers participating in activities.

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CONTENTS

Table of Contents

1. Objective.....	4
2. Overview of tools.....	4
3. Sampling	6
4. Data analysis.....	7
5. Expected outputs.....	8
6. Guidance & templates	8
6.1 Key informant interviews with community leadership	8
6.2 Focus group discussion with community members	10
6.3 Individual Interviews with community members.....	14
6.4 Market interviews/focus group.....	19
7. Food product profile data analysis	22
7.1. Introduction.....	22
7.2. Overview of approach	22
7.3. Developing an Excel spreadsheet for analysis.....	26
7.4. Identifying characteristics, indicators and codes through qualitative data analysis.....	27
7.5. Analysing the data by priority (ranking) (Column D in WP1 product profile)	30
7.6. Analysis	33
7.7. Varieties.....	34
8. Data analysis and report template	35
8.1. How to use this template	35
8.2. Findings: socio-economic context and product preferences	36
8.3. Findings: market study	61
9. Appendices	70
9.1. Appendix A: Pairwise ranking	70
9.2. Appendix B: Transect Walks	71
9.3. Appendix C: Information and consent.....	72
9.4. Appendix D: Information et Consentement	73

1. OBJECTIVE

The objectives of Step 2 are to:

- Understand who is producing, processing, selling and consuming the crop and product, from a gendered perspective.
- Understand the multiple uses and products of the crop and possible trade-offs between uses
- Identify the quality characteristics and descriptors by user (e.g. producers, processors) and demand segment* (e.g. rural consumers).
- Understand how gender influences preferences and prioritisation for characteristics.

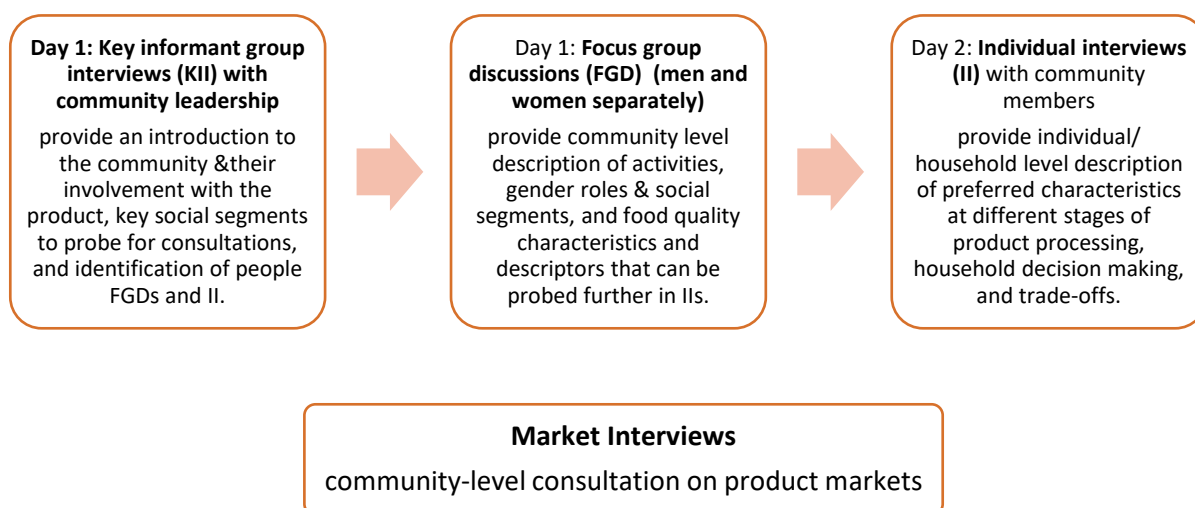
*Demand segment refers to a relatively homogenous group of people who consume the product (purchased or made at home) that have a unique set of preferences (e.g. men from Delta region may have particular preferences for boiled yam or very sour, yellow, gari).

*This step focuses on both the crop and product, to identify the quality characteristics along the food chain (production, post-harvest and market) by different users, the multiple uses and trade-offs between uses, that may reflect different interests of men and women.

2. OVERVIEW OF TOOLS

There are 4 main activities under Step 2 that take place in 8 rural communities where people grow, process and consume the crop. It will take approximately 2 days to complete the activities in one location. The 4 activities are sequenced so that the data from each activity will inform the next activity (e.g. community leader interviews will provide information on relevant social segmentation in the community (ethnicity, age, wealth etc.) that can be used for sampling and probing in focus groups discussions (refer to the Figure below).

Figure 1. Step 2 activities



The activities are:

- **Key informant group interviews (KII) with community leadership.** The introduction of the research team to community leaders is an accepted practice in field research. It is also an opportunity for the research team to ask some questions about the community, about their general activity with the product, and to identify key social segments that are important for sample selection for FGDs/IIs.
- **Sex-disaggregated focus group discussions (FGD)** with people who produce, process and consume the product. The FGDs should be conducted by a food scientist and gender specialist. Participants should be involved with all three activities, and separate FGDs held between men and women. If this is not possible, particularly if there are gender norms that restrict some activities by sex (e.g. men do not process the product), try to have a mix of people in the group to cover all three activities, while still separating by sex. It is expected there will be two FGDs in each location, one male and one female. However, the SoK or KIIs with community leaders may indicate important social segments in the community with preference for a specific variation of the product. Therefore additional FGDs should be arranged to cover these segments. For example, different variations of gari are preferred by different ethnic groups in Benin. Therefore to collect information on these variations, segmented FGDs by ethnicity would be required to strengthen the results.

The FGDs specifically provide information on products, gender roles and social segments, processing steps and equipment, and food quality characteristics and descriptors that can be probed further in IIs.

- **Individual interviews (II) with community members** who process the product (and produce the crop, if possible) in the community, conducted by a food scientist and gender specialist. The IIs provide individual/household level description of preferred characteristics and priorities at different stages of product processing, household decision making, and trade-offs.
- **Market Interviews (MI)** with key individuals or groups involved in marketing and trading activities, conducted by the economist. The semi-structured questionnaire for the MI included in this manual can be used for market interviews in rural areas, small towns and urban centres.
- Good research practice, but an optional activity, is to conduct **Transect Walks**. Transect Walks are systematic walks along a defined path across a community taken with community stakeholders. Here researchers observe, ask, listen and look, regarding production, processing and product preparation practices (e.g. discuss and observe crop quality characteristics on farm, or while it is being prepared near the home). Information on Transect Walks are provided in Appendix B.

While all questions are important to reflect the WP1 approach, critical questions are indicated with an asterisk (*) to ensure they are not missed and we can make comparisons across products.

3. SAMPLING

The Step 2 sampling frame is provided in Table 1. It is important that randomisation be used where possible to reduce bias and strengthen the research results for statistical analysis, publications, and to provide a convincing evidence base for other work packages. The report for Step 2 will need to include a description of how the sample was selected and how randomisation was conducted. It is important for individuals to be selected randomly using a systematic, objective method (using a community list where possible, or every 5th house in the community, for example), as opposed to selecting people available in the area, which is not true random sampling.

Table 1 Step 2 sample

Total Number	Selection process
8 rural communities in total (e.g. 4 in each of 2 states or districts).	<ul style="list-style-type: none"> Identify the region and number of sub-regions to sample based on where the product has significant demand, agro-ecological diversity, type of farming systems. E.g. if there are 4 sub-regions, 2 communities should be selected from each sub-region. Access or develop a list of communities for the sub-regions. Often this can be accessed on the web or through contact with government offices. <u>Randomly select</u> the appropriate number of communities for that sub-region (8 communities in total) that represent important consumption and production areas (e.g. select every fifth community on the list). Once communities are selected, confirm via phone with community leaders about the size of production and consumption of the product in that community to ensure that it is an important area for production, processing or consumption of the product. If not another community should be randomly selected.
<ul style="list-style-type: none"> 8 Key Informant group Interviews (KII) with a group of community leadership in total (1 in each community) 	<ul style="list-style-type: none"> <u>Purposively select</u> (suggest) leaders, especially any female leadership. Use the community introduction event to ask questions about the community. Interviews with the group of leaders also need to identify important social segments to be consulted for the FGDs and IIs.
<ul style="list-style-type: none"> 16 Focus Group Discussions (FGDs) in total 8 female + 8 male with people who produce, process and consume the product (1 male and 1 female in each community) 	<ul style="list-style-type: none"> Separate male and female FGDs (8-12 people in each group) with people who produce, process and /or consume product. <u>Purposively select</u> participants with the help of community contact. Ask the community contact, prior to the fieldwork, to recruit people who: <ul style="list-style-type: none"> produce, process and /or consume product (all 3 if possible, if not ensure all aspects are covered among participants, while still keeping the group sex separated) represent important gender and social segmentation criteria as identified prior to the study (e.g. age, ethnicity, wealth category). It may be necessary to conduct separate FGDs with other social segments, particularly if they are linked to the consumption of different product variations (e.g. different types of gari).

Total Number	Selection process
<ul style="list-style-type: none"> 80 Individual interviews with people who process/prepare the product (II) in total (10 in each community) 	<ul style="list-style-type: none"> If possible, <u>randomly select</u> individual processors or people who prepare the product from community or processor group lists, or every x number of households, not overlapping with FGD participants. <u>Purposive sampling</u> can be used to select individuals from the identified gender and social segments, if there is a likelihood that random sampling may not identify processors. Where possible, and gender roles allow, aim for an equal number of women and men.
<ul style="list-style-type: none"> 8 Market interviews (MI) in total (1 in each community) 	<ul style="list-style-type: none"> <u>Purposively select</u> – e.g. leader of a trader association or market that deals with the crop/product. Where possible, try to interview equal numbers of men and women.

4. DATA ANALYSIS

The most important factor in data analysis is having good data to analyse! To help this, review your field notes and/or transcripts as soon as possible after they were written to complete sentences or add in your personal comments. Include any personal comments or observations under a specified heading so as not to be interpreted with what the participant said.

It is essential that the data for questions is verbatim – as it was stated by the participant and not summarised– as the phrasing and words selected can provide important insights for data analysis. For example, a participant may state the characteristic they prefer, but also include details as to why they prefer this characteristic – so the researcher can start to tease out the important criteria people use to assess which characteristics are important, and how this may be different by social segments (gender, wealth, age, ethnicity etc.)

Step 2 involves qualitative and quantitative data analysis.

Qualitative data, focuses on description (e.g. “the sourness that I would like is like the sourness of a very ripe lime”), and answers the why’s and the how’s. Analysing qualitative data is a process of organising and interpreting data for meaning and identifying themes, patterns, connections, and explanations that reoccur in the data. The following shows the steps for analysing this kind of data:

- Entering the text from interviews into a spreadsheet to compare answers among respondents;
- Highlighting key words and important factors in descriptions.
- Compiling the key words and looking for differences and similarities among respondents, and for different types of respondent (e.g. gender, age, ethnicity, wealth etc.).
- Writing supportive text around the findings and including quotes which exemplify the point being made in the text (e.g. a quote that represents a common opinion, or one that represents an interesting detail).

Aspects which have been highlighted during the interviews should be emphasised in the analysis - and linked to the social or demand segment it is derived from. This can include certain points which have been strongly emphasised, or certain key words and phrases (e.g. characteristics and their descriptors) which have been brought up repeatedly during discussions.

Quantitative data focuses on numbers and can be computed. For example, we can count the number of times a characteristic was mentioned, and derive information on what priority it was given, or the percentages of the crop consumed at farmer household level and sold in what forms; and then what are the proportions/percentages of the product consumed at rural level / urban level, also by different groups (e.g. female, male consumers).

It is very important to analyse the data by gender and social segment, stakeholder group (producer, processor, consumer) and demand segment (e.g. rural consumers) to identify differences (or that there are indeed, none). This should allow to obtain segmented information that can enable the identification of differences between social segments and demand segments (geographical and demographic). For example, average scores (with range) can be provided (e.g. women of X ethnicity reported an average level of independence score of 4 (complete independence), compared to women of Y ethnicity reporting 1 (no independence)).

Guidance on data analysis and the template for reporting are provided in sections 7 and 8: food product profile data analysis and data analysis and reporting, respectively.

5. EXPECTED OUTPUTS

The expected output is a report summarising the findings based on agreed format and templates. Reporting for Step 2 will need to include:

- Description of how the sample was selected and how randomisation was conducted.
- Qualitative data supported by quotes that reflect the points made in the text.
- Quantitative data should be displayed in table format, allowing for comparison by stakeholder group (e.g. men, women, producer, processors, traders), demand segment (e.g. rural consumers in the SW), and social segment (e.g. age, ethnicity or wealth etc.).

Case studies should be presented for interesting aspects of the analysis (e.g. comparison of product consumption by demand segment and their preferred product characteristic), providing an in-depth picture of certain aspects of the analysis.

Guidance on data analysis and the template for reporting are provided in sections 7 and 8: food product profile data analysis and data analysis and reporting, respectively.

6. GUIDANCE & TEMPLATES

6.1 Key informant interviews with community leadership

Guidance

- The following questions are a guide for the discussion with community members. The conversation can be relatively free and take shape around the emerging topics and themes. Critical information to collect is indicated with an asterisk (*). , Therefore if the discussion takes a different turn to reveal interesting insights, the key information should still be collected.
- Community leadership includes individuals such as the Chief, Council members, elders or other leaders in the community. Request that female leadership be present at the discussions. Make sure some individuals are knowledgeable about the crop and product.
- Introduce the research team and respond to questions. Obtain informed consent from all participants prior to participation in the study: Appendix C: Information and (English) and Appendix D: Information et Consentement pour 4 (French).
- Ensure that an experienced facilitator leads the discussion.
- Take good notes! Have a designated note taker, and record the discussions where possible. Notes should be verbatim and not interpretations of the discussion.
- Note reactions of the group, and any observations. These may hold key information.
- Ensure that interview material and tools are available (e.g. checklists, counting material, cards, flipchart and markers).

Template

Unique Identifier:

Facilitator to note:

- Name of town/community and GIS coordinates: (e.g. from smart phone) if possible.
- Population of the community (note adult population and/or including people under 18 years) and number of households in the community.

1. *List of participants

1.1 Name of participant	1.2 Signed consent form (Y/N)	1.3 Gender	1.4 Age	1.5 Ethnicity (if not too sensitive)	1.6 Role/ Position in the community

2. *a) Please describe the community. Who are the different groups of people in your community? *(robe with examples from different social segments: different livelihood activities, wealth category, ethnicity).*

b) What is the relative proportion (%) of the community population in each of the categories?

Note to facilitator: these differences, along with gender, can be used throughout the interviews and focus groups as examples to probe on different trends in the community, such as different product preferences.

3. In your community, are there different types of farmers? How are they different? How is farming related to wealth (e.g. can you have rich and poor farmers? (Note these descriptions to refer to in the FGDs). (If required, probe using examples of social segmentation - gender, ethnicity, age).

Note to facilitator: these differences, along with gender, can be used throughout the interviews and focus groups as examples to probe on different trends in the community, such as different product preferences.

4. *Please describe how -the crop is generally grown in this community *(probe using examples of intercropped, in rotation, seasonality, with what, harvest time, planting time etc).*
5. *Out of all the farmers in your community, how many people grow [the crop] (% or what number out of 10 stones)? Who doesn't grow the crop, and why? (Probe using examples of gender and wealth such as women headed households, richer farmers, an ethnic group or age category).
6. *Has the community had access to new varieties of this crop? Which ones? What has been the experience of these varieties for [the crop]?
7. *Which factors/challenges could be limiting use of improved [crop under study] varieties in this community? And, how have these been addressed? (some examples of responses could be problems with distribution, stems drying up).
8. *Thinking about the average household in your community, how much of the crop is used for a) home consumption, b) selling product under study, c) other products (ensure you include the

name of the other products). Facilitator can use ten stones as an example: 4 for home consumption, 2 for selling fufu, 4 for selling gari). How may this be different among other people in your community, such as female headed households, a specific ethnic minority group).

9. a) Thinking of people in your community, how often are the different products from the crop consumed (e.g. daily, seasonally)? Does this vary by season or other time of year? Is this the same for everyone in the community? (if required, *probe using examples of social segmentation particularly gender, ethnicity, age, wealth status from Q2 and 3.*
b) How has this changed in the last five years? Please describe.
10. Thinking of people who buy the product, they may be outside of the community. Do you think people are buying more or less compared to five years ago? Why? (If required, probe using examples of social segmentation particularly gender, ethnicity, age, wealth status How has this changed in the last five years? Please describe. (An example of a response: Women felt they didn't have strength to pound yam so now there is more demand for pre-prepared pounded yam)
11. Are there any taboos, restrictions or beliefs of people in growing, processing or consuming the crop or its products? Please explain. (Some examples of responses are that women should not step foot on yam fields; or gari is good to consume for pregnant women and young children).

Thank you and close the discussion.

Compile information on social segments (Q2, 3, 5 and 9) to recruit FGD participants.

6.2 Focus group discussion with community members

Guidance

- The following questions are a guide for the FGD with community members. The conversation can be relatively free to take shape around the emerging topics and themes. Critical information to collect is indicated with an asterisk (*), and therefore if the discussion takes a different turn to reveal interesting insights, the key information is still collected. Conduct FDGs with people who grow, process and consume the crop (all three if possible) in a group of 6-12 people, with separate FGDs for men and women, and other factors of social difference as identified by community leaders or the SoK.
- The FGDs should be conducted by an experienced facilitator, with the attendance or facilitation of both a food scientist and gender specialist, in addition to the interpreter.
- Take good notes! Have a designated note-taker and record the discussions where possible. Notes should be verbatim (as said by the respondent) and not interpretations of the discussion.
- Try not to take your pre-conceived ideas of responses with you to the discussion. A non-food scientist may facilitate the discussion to ensure that the terms and phrases used by participants are not interpreted into food science terminology during the discussion (e.g. *many strands* as opposed to the amount of fibre).
- Be curious and probe without leading the participant to answer in certain ways. Studies such as this are collecting views on topics that are very difficult for participants to describe (tacit knowledge, e.g. household gender relations, or why we like a certain product). Therefore the facilitator will need to ask questions in different ways and go the extra mile to obtain descriptions. It often helps to ask people to think of comparisons (e.g. *sour like a lime?*), or think back to a particular scenario and what happened (e.g. *when you last harvested, how*

was the decision made about how the harvest was used in your household? When has a decision been made differently?).

- Ensure that people are not kept waiting (e.g. organise in advance, check in to ensure times are correct, team members to be ready, etc.).
- Ensure to bring cards for characteristic ranking and other material (e.g. checklists, counting material, cards, flipchart and markers).
- Obtain informed consent from all participants prior to participation in the study (Appendix C: Information and consent for (English) and Appendix D: Information et Consentement pour (French)).
- Try to encourage group discussion and prevent individual(s) dominating.
- Note reactions of group, e.g. disagreements, points of contention and any observations. These may hold key information.
- Provide a small thank-you for participating, if possible.

Template

Unique Identifier:

Facilitator to note:

Name of town/community: (with GPS coordinates if possible)

Note the criteria used for selection of FGD participants:

1. *List of participants in the FGD

1.1 Name	1.2 Received consent to participate (Y/N)	1.3 Gender	1.4 Age or age range (if age unknown)	1.5 Ethnicity (if not too sensitive)	1.6 Produce crop (Y/N)	1.7 Process [product of study] (Y/N)

2. *What are the main important livelihood activities of people in the community involving food crops? (Open question to start *the discussion*).
3. In your community, are there different levels of farmers? What are the levels? How is farming related to wealth (e.g. can you have rich and poor farmers? (Note these descriptions to refer to throughout the FGD). (Probe using examples of social segmentation - gender, ethnicity, age).
4. *Farming practices and social segmentation
 - 4.1 Do farmers in your community farm in the same way? (Probe using examples such as *planting techniques – ridges, rows*), *farm on group plots, household plots etc.*) Why?
 - 4.2 Who does these different practices? (Probe using examples of *different n social segments, draw on Q2 and 3, along with others, e.g. gender, age, ethnicity, along with segments such as gender, age, ethnic groups, that were mentioned in Q2 and Q3 or the KII*).
 - 4.3 What proportion (% or using ten stones) do men and women farm on separate plots and/or shared farms in this community? If separate, what are the differences and similarities between men and women's plots? If men and women farm together, are there differences in the type of work that men and women do?

5. Important crops in the community (see table below)

5.1 What are the three most important crops for people in your community, in order of importance? 1= most important

5.2 *Why are those crops important? *Collect all the responses as to why EACH crop is important and add detail.*

E.g. if it brings income, is the consistency of income over time or the total amount of income most important? For food security, is it consumed regularly throughout the year and drought-tolerant?, Or is the crop primarily sold, to bring income for people to purchase foods etc.?

5.3 *For who are these crops important? (If required, probe using examples of social segments in previous question and identified in the KII) .

5.4 *If the crop for the product under study is not included: we noted that this discussion didn't mention [crop under study]. Where would this crop rank in importance? Why?

Facilitator can record information in a table such as the one below:

5.1 Most important crops	5.2 Criteria for why the crop is important	5.3 Groups of people in the community for whom the crop is most important and why
1		
2		
3		

We will now focus the discussion on the **[crop under study]**.

These sections start to focus on characteristics and are important so please allocate enough time. Ensure to go beyond list of characteristics such as 'sour' or 'heavy' and record the descriptors to understand what the characteristics mean.

6. *A) Varietal information

6.1 What are all of the varieties of [crop under study] grown in this community? Rank in order of importance 1 (Note local and technical name – verify with key informant after the FGD if necessary))	6.2 Why do people plant this variety? (<i>Open response – leave the respondent to say why they think the variety is important – it can reveal if it is product related or an agronomic related reason</i>)	6.3 Is this variety good for a certain product? If yes, what product and because of what characteristics?
1 Most important		
2 Second in importance		
3 Third in importance		
4		

6. B) Are there [crop] varieties that are less preferred in the community? Why

7. *Crop characteristics (general)

7.1 What are the characteristics of the crop that would make it a good crop in general? (not specific to the product). *Open response*

7.2 What are the most important? Rank in order of importance. *The question aims to understand the criteria the participants use to assess a good crop - agronomic, processability for particular products, storability, labour time for specific tasks, etc.*

8. Uses of the crop

8.1 *List all the products from the crop (some may already be mentioned in 4.3)	8.2 In your community and in general, who sells [product]? <i>Probe household members, gender and social segments</i>	8.3 What are the main important characteristics of the crop for this product?
Include Fresh	<i>Ask about production labour for fresh</i>	
...		

9. *In your community, if the crop is used for different purposes and products, does it happen where there is disagreement in the household on how the crop is used? If there is disagreement, how does this affect people's benefit from the crop/product and who is affected? (*Probe differences in social segments*).

E.g. For example, cassava can be sold fresh or processed. In some areas, men may prefer to sell the crop fresh while women prefer to sell the crop processed. This is linked to who has control over the product's sale and profit.

We will now move to discussion around [product under study – specify variation if applicable].

Raw Material

10. *Thinking about when you harvest the crop or purchase the crop on the market to make the product, how do you recognise when the crop will make a good, high quality [product under study]? What are the characteristics? Rank in order of importance 1=most important, 2= second most etc etc. Note the top two characteristics to use for pairwise ranking exercise Q15.

11. *How do you recognise a less preferred crop variety for the [product under study]? What are the characteristics? Has your community experienced this before? Please describe.

Processing (revise as applicable to your product, if 'boiled' product, can skip to the next section)

12. Processing and preparation of the [product under study – specify variation if relevant]

12.1 *What are the <u>processing and preparation</u> steps for the [product]?	12.2 Who typically is involved in conducting this step? Probe: social segments and hired or household labour etc. e.g. female hired labourers; women and girls in the household	12.3 *What are the resources required for processing the [product]? (e.g. gari fryer, mixing bowls, note if they are community or household based)

13. *Are there variations of the [product under study] and variations of the processing of the [product] in your community? Are the variations related to different varieties, food processes or food preferences? Please describe.
14. *Thinking about when you process the [crop], what would be the characteristics that show it has good processing-ability into [product] at each stage of processing? Rank in order of importance 1=most important. *Note: for use for pairwise ranking exercise.*
15. *Pairwise for raw material and processing characteristics (see appendix A). Facilitator to collect the community's most important top six characteristics from Q10 and Q14.*

Preparation and final consumption

16. *Product preparation
 - 16.1 How is the [product] prepared? *(immediately prior to consumption – there may be more than one e.g. cooked into paste, added with water, with ingredients, boiled, steamed...)*
 - 16.2 What is the [product] consumed with?
17. *What is a high quality final [product]? What are the characteristics? Rank in order of importance. *Note: for use for pairwise ranking exercise.*
18. *Pairwise comparisons for final product characteristics (see appendix A). Facilitator to collect the community's most important top six characteristics from Q17.*

Thank the participant and close.

After completing the KIs with leaders and FGDs, complete this section to prepare for Day 2 Individual interviews.

Product variations	Social segments	Varieties grown and for what products (local and technical names)			Quality characteristics					
					Raw material		While processing		Final	
		Lead-ers	Female	Male	Male FGD	Female FGD	Male FGD	Female FGD	Male FGD	Female FGD

Note the processing steps + resources required

6.3 Individual Interviews with community members

Guidance

- Randomly select a minimum of 10 processors (ideally who produce too) for the individual interviews from community lists or every x households. However, participants should grow and process the crop or process the crop into the product of focus and consume it regularly.
- It is advised to interview people different from those who attended the FGD because it would be too burdensome on their time and limit the range of opinions reached.
- The IIs should be conducted by an experienced facilitator, food scientist and/or gender specialist.
- Try not to take your ideas or terminology with you to the interview (e.g. use *many strands* as opposed to the amount of fibre).
- Be curious and probe without leading the participant to answer in certain ways. Studies such as ours are collecting views on topics that are very difficult for participants to describe (tacit knowledge e.g. household gender relations, why we like a certain product). Therefore the

facilitator will need to ask questions in different ways to obtain the detail necessary. It may also be helpful to ask participants for scenarios – When you did this, what happened? How was the decision made? When has a decision been made differently?

- Critical information to be collected is indicated with an asterisk (*), and therefore if the discussion takes a different turn to reveal interesting insights, the key information is still collected.
- Ensure to bring cards for characteristic ranking and other material (e.g. checklists, counting material, cards, flipchart and markers).
- Obtain informed consent from all participants prior to participation in the study: Appendix C: Information and consent for (English) and Appendix D: Information et Consentement pour (French).
- Take good notes! Have a designated note taker, and record the discussions where possible. Notes should be verbatim and not interpretations of the discussion.
- Provide a small thank-you for participating if possible.

Template

1. Consent to participate in interview (Y/N). If no, terminate interview.
2. Name of community/town
3. GIS coordinates: (smart phone) if possible
4. Name
5. Sex
6. Age
7. Relation to the household head (e.g. head, spouse, first, second or third wife if polygamous), daughter, son etc.)
8. Marital status (single, widow, divorced, married)
9. Ethnicity
10. Religion
11. Main profession
12. Do you grow [crop] (Y/N)
13. Do you process [product]? (Y/N) **(all interviewees must process the product).**

We will now move to discussion around the [crop under study].

These sections start to focus on characteristics. Ensure to go beyond a list of characteristics such as 'sour' or 'heavy' and record the descriptors to understand what the characteristics mean.

14. *Crop characteristics (general)
 - 14.1 What are the characteristics of the crop that would make it a good crop (in general) you would use? Try to obtain the descriptor – the range of acceptability. Use items close by or drawings in the ground.
 - 14.2 What are the most important? Rank in order of importance. Why? *The question aims to understand the criteria the participants use to assess a good crop - agronomic, processability for particular products, storability, labour time for specific tasks etc.*
 - 14.3 (If married) Do you think these would be different criteria for your spouse? Why or why not?
15. *Crop production of the [crop under study]

15.1 What are the varieties of the [crop under study] that you grow? Rank in order of importance (<i>Note local and technical name – verify with key informant</i>)	15.2 A) Why do you grow this variety? (<i>Open response</i>) B) which products do you make from these varieties?	15.3 From what source did you receive this planting material? (<i>specify if they received it, from who directly, and if third party</i>)	15.4 Does your spouse grow these varieties? What variety/varieties does your spouse prefer? (indicate with a *) Why?
1=most important			
2			
3			
....			

16. *Use of the crop

16.1 List all the products from the crop produced by members of your household	16.2 Who sells [product] in your household? <i>Probe household members, gender, age</i>	16.3 Are there people in your household that take most of the decisions regarding the [product]? <i>Probe specific household members, gender, age. Please describe.</i>	16.4 What are the important characteristics for this product?
Include Fresh			
...			

17. *Decision making and trade-offs between the different uses of the crop

- 17.1 *How were decisions made on how the crop would be used among the different products? About what is consumed at home or sold? Who was involved and what was considered?
- 17.2 *Have there ever been challenges or disagreements in the household about these decisions? Please explain.

For example, in some areas, men may prefer to sell the crop fresh while women prefer to sell the crop processed. This is linked to who has control over the product's sale and profit.

18. Are there any taboos, restrictions or beliefs of people in growing, processing or consuming the crop or its products? Please explain. (*Probe differences in social segments*)

We will now move to discussion around the [product under study].

Raw material for the product

19. *In your opinion, what variety(ies) give the highest quality [product under study]? Why? *Facilitator to note if these varieties are different then the varieties they grow (Q15), or what was stated by the FGD the previous day.*
20. *If you were to purchase the crop on the market or harvest the crop, how do you recognise and perceive a good crop for making a high-quality [product]? By looking at it, by touching, smelling or by tasting it? Try to obtain the descriptor – the range of acceptability. Use items close by or drawings in the ground. Rank in order of importance 1=most important. *Note: for use for pairwise ranking exercise.*

Are these also qualities that would be good for other products? Please explain.

21. What are characteristics of a variety of the crop that give a poor quality [product under study] product, so that you would not use or buy it?

Processing (revise as applicable to your product. If 'boiled' product, can skip to the next section)

22. *What are the most important (crucial) processing steps or parameters you need to control very well to obtain of high quality [product under study]?
23. *Thinking about when you process the [crop], what would be the characteristics that show it has good processing:-ability into [product]? *Try to obtain the descriptor – the range of acceptability. Use items close by or drawings in the ground. Rank in order of importance 1=most important. Note: for use for pairwise ranking exercise.*
24. *When buying or selling the product (after processing the product), what are the essential and most important characteristics required for a high quality product? By looking at it, by touching, smelling or by tasting it? *Try to obtain the descriptor – the range of acceptability. Use items close by or drawings in the ground. Rank in order of importance 1=most important. Note: for use for pairwise ranking exercise.*
25. What are the quality characteristics that would influence, your decision or a customer's decision, not to buy or use the [product under study]? Why?
26. *Pairwise for processing material characteristics (see appendix A). Facilitator to collect the community's most important top six characteristics from Q23, 24.*
27. Are there any challenges you experience with processing and sale of the product? Please explain.

Facilitate these questions carefully and pay attention to gender needs (e.g. practical immediate needs, or strategic needs that change their status.) E.g. if the participant answers 'money' or 'credit' – explore the reasons behind this and how the circumstances in the household or the community may lead to the situation.

Preparation and final consumption

28. *At home, when preparing the [product under study] (cooking into a paste, boiling, adding water, ingredients etc), what are the characteristics of the product required? Probe: sensory characteristics – texture, appearance, taste, smell etc.
29. *Describe the characteristics of a high-quality end [product] prior to consumption. *Rank in order of importance – or use pairwise ranking exercise for final product characteristics.*
30. When you eat the [product under study]? What are the characteristics of a high quality product in the mouth and how do you evaluate it? Taste, texture in the mouth, aroma etc., depending on the consumption form?
31. *When a person (you or a member of your family) says that the quality of the [product under study] is not good when they eat it, what are they complaining about/what are the reasons?

32. *Pairwise for final product (see appendix A). Facilitator to collect the community's most important top six characteristics from Q29 and Q30.*

We will now ask you a few remaining questions about decisions in your household and changes in the past five years

33. *Independence rank on following decisions, rank from 1 to 4.

What is your level of independence in making decisions regarding...	1=no independence the decision is made by someone else, 2=a little independence to suggest ideas but decision is taken by someone 3=most independent but need to consult someone 4 = complete independence.	<u>Notes</u>
32.1 what [variety of crop] material to plant		
32.2 use of crop (what product)		
32.3 marketing		
32.4 use of profits from sale of [product under study]		
32.5 use of profits from sale of alternative product sold from [crop under study], if different household member (e.g. fresh)		

34. In the group discussion the previous day. it was mentioned that people require a number of resources [list] for processing the product. How do you access those resources? *See codes 1 to 5 in the following table.*

Resource	33.1 Access and control 1-own outright, 2-use but wouldn't take in a divorce, 3-rent, 4-borrow from husband, 5-other	33.2 Do you experience any constraints in accessing these resources? Please describe.

35. Thinking about when you harvest the [crop under study].

35.1 How much of the harvest was used for consumption at home? As what product? (kg or tonnes)

35.2 How much of the harvest was sold? (kg or tonnes – and indicate timeframe) As what product(s)? To what market(s)? Probe between rural or urban market, trader, restaurant, food vendor, large company.

35.3 When has it been different? Under what circumstances?

36. Changes in the last 5 years

- 36.1 Have changes in the production, processing or sale of the product affected you/your spouse/children?
- 36.2 Have there been any changes in the market or mechanization in your community? How has this affected your work? What about other groups of people?

Thank the participant and close.

6.4. Market interviews/focus group

Guidance

- Market Interviews (MI) should take place during the first field visit as part of Step 2, but also as part of Steps 3 and 4 of the methodology that involve other locations (e.g. processing centres and cities)
- Depending on the location, there may be enough people for a group discussion (e.g. with members of wholesale traders association) in secondary centre / processing hub or bigger city); at village level, it might only be a few assembly traders around or a knowledgeable person to interview.
- At trader level, focus group discussions or individual interviews are possible depending on who is available for interviews. A minimum of four trader interviews should take place in secondary urban centres and four in cities, bearing in mind that both traders of the raw material crop (e.g. cassava) and the processed product (e.g. gari) should be interviewed. In some cases, it was indicated that larger samples of traders can be interviewed; for example, 10 – 15 wholesale traders and 30 retailers. It is up to the country teams to decide which sample size to take.
- The checklist and questions will require some tweaking or adapting depending on which category of trader will be interviewed and at what level, e.g. in villages, towns, or cities, and whether the traders to be interviewed are dealing in the raw material or in the final product.
- It is important to bear in mind that the checklist is not a questionnaire, and as a result it should be taken as a discussion guide. The conversation can take shape around the emerging topics and themes.
- Critical information to be collected is indicated with an asterisk (*), and therefore if the discussion takes a different turn to reveal interesting insights, the key information is still collected.
- Introduce the research team and respond to questions. Obtain informed consent from all participants prior to participation in the study: Appendix C: Information and consent for (English) and Appendix D: Information et Consentement (French).
- Ensure that an experienced facilitator leads the discussion.
- Take good notes! Have a designated note taker, and record the discussions where possible. Notes should be verbatim and not interpretations of the discussion.
- Note reactions of group, and any observations. These may hold key information.
- Ensure that interview material and tools are available (e.g. checklists, counting material, cards, flipchart and markers).

The objectives are to identify different demand segments for the product, define who and where the demand for the product is, and the characteristics associated with preferences for the product. A demand segment refers to a relatively homogenous group of consumers with a unique set of preferences (e.g. men from Delta region may have particular preferences for boiled yam). Importantly, a demand segment includes consumers who pay money for the product and those who may grow the crop and prepare the product at home for family consumption.

These questions will need to be adapted to the respondent. For Activity 3, the questionnaire will be used at village level. The same questionnaire can be used at town level (activity 4) and urban areas (activity 5) when those activities take place. Not all respondents can answer all the questions.

Template

1. Consent to participate in interview (Y/N) If no, terminate interview
2. Name of town/community
3. Name(s) if group of people or association (e.g. trader association; which products are covered?)
4. Gender (e.g. of members of trader association)
5. Age (profile of trader association)
6. Ethnicity
7. Household size
8. Level of education
9. Ownership of means of transportation (yes/no)
10. Ownership of means of communication (yes/no)
11. Road to the nearest town is good (yes/No)
12. Distance to the market from the home in km
13. Marketing experience in years
14. Main occupation (e.g. traders; specify in which products they are dealing? Level of marketing (wholesaler, retailer or both)

Background to the value chain.

15. *What are the major locations where the [crop] is grown, marketed?
16. *What is the estimated proportion (percentage) of the crop kept by farmers producing the crop for home consumption and what is sold by farmers (indicate a typical month in dry season, and month in wet season), and to which markets in:
 - Fresh form
 - Processed form: [product]
 - Processed form: other products from the cropIf it is difficult to establish the percentages then try to do scoring, using for example 10 stones representing the total annual crop, and then score according to how the crop has been utilised. If that also provides difficult, then do ranking of the responses.
17. What is the proportion (percentage) of the crop consumed in urban areas, in:
 - Fresh form
 - Processed form: [what products]
 - Processed form: alternative products from the crop

We will now focus on the product of the study.

18. *What are the major locations where the [product] is processed and marketed?
19. * Who is buying the [product]? What are the main customer groups? (what are they demanding, from where and what are the demographics of the customers) (at the applicable level, i.e. community, processing site, city)? *E.g. Yoruba men, young women, high-end restaurants etc.*
20. *What is the proportion of the product sold to the different consumer groups. For example at household level by farmers and in towns/cities, restaurants, food vendors, institutions such as schools or hospitals (as for home consumption, in what form, and do all farmers or urban consumers have the same consumption patterns or are there differences)?
21. Regarding home consumption, do all consumers have the same consumption patterns or are there differences? *E.g. Rural people may have different habits compared to urban consumers, or consume in different forms.*

22. What are the different variations of [the product] demanded? *If required, probe with examples such as yellow gari, white gari etc). Rate products in order of importance 1= very important. In your opinion, are the variations from using a certain variety or differences in processing, or something else?*
23. For you, what are the quantities (Kg or tonnes) produced traded (note time frame – weekly/ monthly and season)? If the information available, how much are they? Otherwise, the information needs to be sought from statistics.
24. What is the daily throughput/amount traded daily in the market of for the product (in kg or tonnes) in:
- a) wet and dry seasons
 - b) planting time
 - c) festive period
 - d) time of school fees?
25. * By which means and in what form, is the [product]:
- 25.1 Transported,
 - 25.2 Stored, and
 - 25.3 Sold.

Try to establish differences according to gender, socio-economic status, age, region, or other factors.

26. *During crop/product transportation, storage and sale, what are important characteristics that might affect the product?
27. *Economics of the product, in terms of:
- a) Price, by season, and trends over the last 10 years?; for calculations try and use the average price for the last 4 months.
 - b) Cost elements in the value chain per kg/tonne? (e.g. transport, packaging, taxes, loading/off-loading costs, stall rental)
 - c) Profitability of the product? (i.e. gross income minus costs, or % of profit margin as a share of gross income)
28. *What are drivers of change in terms of:
- a) Demand for product in general (list key drivers of change)?
 - b) Changes as far as major characteristics of the product are concerned?
29. *Draw trend lines for consumption trends per main demand segment, for last 10 years, and for coming 10 years. *This requires marker pens and flip-charts.*
30. *What are the demographics of the demand / consumer segments (age, gender, marital status) for the product (in the area relevant to expertise of the interviewee e.g. rural, urban, small urban centre etc.):
31. *Facilitator: Undertake mapping exercise of the major characteristics of the product per key demand segment (i.e. consumer groups) for the location where interview takes place

What are the preferred characteristics of the product for the main demographic demand/consumer segments (female consumers, male consumers, youth) of the product? (in the area relevant to expertise of the interviewee e.g. rural, urban, small urban centre etc.)

(e.g. ask this question in general and take note of responses; for example, landless men in the SE are demanding early maturing cassava that makes extra white gari)?

Facilitator to discuss if there are sub-groups within these groups which have different demand preferences reflected in product characteristics.

32. *Use cards to identify product characteristics, then, during discussions with the group, put the cards in order to reflect the importance of characteristic per demand segment / consumer group. Ask the discussants to score on scale of 1 (least important) to 10 (most important) reflecting importance of the characteristic, and take note of the replies.

33. What are the different varieties/types of the crop demanded?

Ask the discussants if they have any questions and thank them for time provided.

7. FOOD PRODUCT PROFILE DATA ANALYSIS¹

7.1. Introduction

This section presents guidance **on Step 2 data analysis for the WP1 Food Product Profile**. These data will be used to prioritise the characteristics examined in WP2.

The remaining Step 2 data will need to be analysed and documented as per the reporting template.

Data from Step 3, processing diagnosis, and Step 4, consumer testing, will add data to the WP1 Food Product Profile started in this Step, in the following ways:

- Step 2: quality characteristics of raw material and final product, prioritised by different gender and geographical segments with adequate population sample sizes from users in rural areas who may produce the crop, and/or process and consume the product
- Step 3: quality characteristics of raw material (during processing) from processors including quantitative measurements (diagnostic)
- Step 4: quality characteristics preferred or not for final product with adequate population sample sizes for rural and urban consumers.

Other priority data important for WP2 biochemists is:

- Processing steps including variations, presented in a flow chart – *measured in Step 3*
- Initial list of good and inferior varieties for product -- *common and scientific names for varieties*
- Information on product variation – *measured in Step 3.*

Development of the WP1 Food Product Profile requires a specific methodology. This section provides guidance specifically on data analysis for the contribution of Step 2 to the profile..

Note: question numbers may not match with questionnaires due to adaptation by research teams. Please match the text of the question to your questionnaire. Skip if not relevant to your product.

7.2. Overview of approach

The template for the Step 2 WP1 Food Product Profile is provided in **Table 2** below. This table has the following components organised into the characteristics of the: 1) raw material, 2) raw material during processing, 3) the raw final product (if applicable), and 4) and the final cooked/ready to eat product:

- High quality characteristics: characteristics that give a good, high quality product

¹ In the final version of the manuals, this section is projected to be included in a separate manual for Step 5.

- Indicator of high quality characteristic: Where data are available, description of the way the respondents assess (evaluate, feel) the characteristics. For example, what is the intensity of the preferred sourness
- Priority of high quality characteristic: Indicate the rank, and note if simple or pairwise ranking
- Poor quality characteristics: Characteristics that give a bad, poor quality product
- Indicator of poor quality characteristic
- Varieties - GOOD
- Varieties - INFERIOR

The data for the table will be derived from:

- **Individual Interviews (II)** - sample size at least 80 people, in at least 2 regions/districts. This will make it easier to quantify. Note that the sample may not allow for comparison by sex if processors are mainly women (or men).

Data should include references where they were derived from *e.g. very sweet when they are put in the product profile table (e.g. II + gender/region).*

The output will be a **set of tables**. A table will be developed for each of the following:

- Summary table of product profile
- All women in the sample (from II)
- All men in the sample (from II),
- District or region X
- District or region Y
- Other factors of social difference or product variation (e.g. religion, ethnicity). In many cases this may be more important than gender in identifying different sets of preferred characteristics (remember in Benin workshop fieldwork there were two different variations preferred by different ethnic groups in Ikpilè, Benin!)

You will need to adapt the table by adding rows to suit the number of characteristics.

Table 2 First iteration of the Activity 3 WP1 product profile

	A	B	C	D	E	F	G	H
	Group: One table for men, one for women, one table for each region	High quality characteristics Characteristics that give a good, high quality product	Indicator of high quality characteristic Where data available, the way the respondents assess (evaluate, feel) the characteristics	Priority of high quality characteristic Indicate the rank, and note if simple or pairwise ranking	Poor quality characteristics Characteristics that give a bad, poor quality product	Indicator of poor quality characteristic Where data available, the way the respondents assess (evaluate, feel) the characteristics	Varieties-<u>GOOD</u> Include Variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability	Varieties-<u>BAD</u> Include Variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability
1	Raw material characteristics for product quality (agronomical, post-harvest)	II Q20	II Q20	II Q20	II Q21	II Q21	II Q15, Q19	
2	Processing characteristics of raw material for the product quality during processing (technological, physicochemical)	II Q23	II Q23	II Q23 if conducted pairwise - Q26				
3	Characteristics of raw final product	II Q24 II Q28		II Q24	II Q25	II Q25		
	To look at							
	To touch							
	To smell							
	To taste							
	Texture in mouth							

	A	B	C	D	E	F	G	H
	Group: One table for men, one for women, one table for each region	High quality characteristics Characteristics that give a good, high quality product	Indicator of high quality characteristic Where data available, the way the respondents assess (evaluate, feel) the characteristics	Priority of high quality characteristic Indicate the rank, and note if simple or pairwise ranking	Poor quality characteristics Characteristics that give a bad, poor quality product	Indicator of poor quality characteristic Where data available, the way the respondents assess (evaluate, feel) the characteristics	Varieties-GOOD Include Variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability	Varieties-BAD Include Variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability
4	Characteristics of cooked/ready to eat final product (sensory)	II Q29, Q30, - or Q32 if conducted pairwise		II Q29, Q30, - or Q32 if conducted pairwise	II Q31	II Q31		
	To look at							
	To touch							
	To smell							
	To taste							
	Texture in mouth							

7.3. Developing an Excel spreadsheet for analysis

To complete columns B, C, E and F (high and poor quality characteristics and indicators):
Ensure that database is in one worksheet for each country.

- At first, the data should be copied verbatim from the original database, which is per community.
- The result should be a database for all the individual interviews per product per country.
- Each II should be allocated a number in the first column, allowing analysis without the names.
- Each II should occupy one row. When several rows were occupied in the original, then it is advised to split the answers to the question into several columns (e.g. 15.1a, 15.1b, etc).

Identify the type of quality characteristics you would like to analyse (raw material, during processing, final raw product – e.g. gari, and final cooked/ready to eat product) and the corresponding questions.

Extract the question and responses from the II that you want to analyse and paste into a new spreadsheet to analyse.

- Ensure to copy variables such as gender, district/region, and other factors of social difference, the identification number. Later a ‘filter’ can be used to analyse the data by these factors.

Add the following columns with headings as shown below (see **Table 4** later in the document as an example):

- **Quality Characteristic (priority 1):** the term in the exact words spoken by the respondent about the characteristic (verbatim) (e.g. very sweet; pure white colour)
- **Indicator (priority 1):** the way the respondents describe, assess, evaluate or feel the (bad or good) characteristic, which is written down in the exact words it was spoken (e.g. *skin that comes off like a glove*)
- **Code (priority 1):** the basic level of categorisation of characteristics. It provides detail but also enables the grouping of characteristics that are phrased in slightly different ways (e.g. *chalk white; pure white; snow white* – can all be grouped as *white colour*). After all the codes are established, a drop-down menu can be made in Excel.
- **Category (priority 1):** the second level of categorisation of the code that indicates the larger group that different codes can belong to (e.g. *White colour* can be grouped under a category of *Colour*). After all the categories are established, a drop-down menu can be made in Excel.
- **Family (priority 1):** the third level of categorisation, which groups together different categories under a certain theme (e.g. agronomical, post-harvest, technological, physico-chemical, sensory). In the example of colour above, it would be under *appearance – sensory*, if it concerns a final product - *physical, post-harvest* if it concerned a crop). These will be consistent and can made into a drop-down menu in Excel.

These columns will need to be repeated for other characteristics mentioned by the respondents and ranked as priority 2, 3, 4 etc.

7.4. Identifying characteristics, indicators and codes through qualitative data analysis

Review the responses, taking note of the quality characteristics and the indicators that will help you identify what codes to develop. In the example below, **quality characteristics** are highlighted in **PURPLE** and **indicators** in **GREEN**. See table below.

Table 3 Example of identifying codes and analysing textual data and identify codes

Respondent	Qx. *If you were to purchase the crop on the market to make the product, how do you recognise and perceive a good crop variety for making a high-quality [product]? By looking at it, by touching, smelling or by tasting it? Rank in order of importance 1=most important.	Qxx. *When buying or selling the product (after processing the product), what are the essential and most important characteristics required for a high quality product? By looking at it, by touching, smelling or by tasting it? Rank in order of importance 1=most important.
31	<u>Purple Haze</u> is the best variety. The first reason is its <u>Heaviness</u> . This is determined by 'weighing' (makes balancing action with hands) the roots by holding them in the hands. <u>Secondly</u> , is when you bite the roots, the ones with <u>less water will make the better gari</u> .	<u>First is White colour</u> , <u>second is crunchiness when chewing</u> (how dry it is), <u>third is heaviness</u> , and further is <u>no fibre</u> . <u>Gari fermented for 3 days is sourer</u> than that fermented for one day. <u>Gari fermented for 2-3 days is highly demanded</u> . The respondent also prefers gari fermented for 3 days for her home.
32	<u>Idileru</u> . 'Epo re daa. O ma bo ferefere, ma bo dadaa ni. Ti onia ba kan t'o fi ekanna sinu e, to ba wole ko da, ti ko ba wole, oda'. i.e. <u>Idileru</u> . <u>First, skin/peel is clean and very attractive</u> . <u>Secondly, the root has to be easy to peel and unwrap</u> . <u>Thirdly, is less water</u> . To recognize a good root, <u>the fingernail is used to pierce the root: if the fingernail goes easily into the flesh it means it has a lot of water and not good for gari</u> . <u>If otherwise, it is good for gari</u> .	"gari funfun ti a ba wuwo lowo, komalokun, kan niwonba lenu" i.e. <u>White in colour, good weight, no shreds, not too sour (but still sour)</u> .

Copy and paste the precise text – in the exact words of the respondent - to the appropriate 'Characteristics' and 'Indicator' column for that ranking (see **Table 4** later in the document as an example).

Assign codes to the quality characteristics highlighted in the previous step.

Coding is simply a way to organise data to make it easier to analyse.² The code is a 'tag' or a label on the text that tells a person what the text is about. Adding a code will help you to identify what respondents said on the topic and compare responses. *Please refer to the Powerpoint presentations on qualitative data analysis for more detail.*

The code is the most basic categorisation and should capture as much detail as possible. It is to be specific and as close to the characteristic as phrased in the words of the respondent. That way we will not lose any detail with aggregation. This detail is very important for WP2.

² Coding can be done through qualitative software (e.g. Atlas ti.), but also using Word, Excel and your notebook. We will be using Excel in this example of characteristics as it is the most widely available.

For example, characteristics that were described as “white with no flecks”, and “white like milk” or “clean white with no imperfections”, “white like chalk”, would be coded as “white colour” not “colour” to correspond with the most basic level of analysis and more closely resemble what was described by the respondent.

Another example is regarding plantains in Cameroon: a code for plantain suckers can be summarised into “big sucker”, based on answers such as “big sucker”, “large sucker”, “huge suckers”, etc.

If you are confused about what 'level' to code at - just think about what type of information you want to have in the **Characteristics** column of the product profile. It will be much more helpful to have “White Colour” as a characteristic compared to “colour”.

Note: Coding will need to be consistently conducted by all individuals analysing the specific dataset for that product and country.

Once you review all the responses, you can compile a list of codes of the different characteristics. For example, “heavy root”, “low water”, “white colour”, “not too sour”. Review to see if there are any that could be combined or if you need new indicators to be more specific. After this step, you can “sort” your responses in excel and look at the indicators for all respondents stating “white colour” is important. In the report, you can list the codes and the different indicators you heard in your interviews.

Once you apply codes to the data, you can then put the codes into a larger group called a *category*. The categories can then be grouped into a larger family (type of sensory characteristic it is, e.g. agronomical, post-harvest, physico-chemical or technological). You can create a drop down menu for each of these for consistency and ease. See **Table 4** below.

For example, for gari, if the quality characteristic collected is “white gari”, and if you have identified the ways people assess “whiteness” (indicator), you can code “colour”, then you can group codes in a higher level category of “appearance”, and then a family of “sensory characteristics”.

Review all the codes, categories and families. To ensure there is consistency in terminology and to make creating a pivot table easier – create drop down menus.

Table 4 Example of codes, categories and families from original text

Q20. Raw material characteristics for product (ranked in importance)	Characteristic 1 (most important) in the exact words of the respondent	Indicator 1 in the exact words of the respondent - the way the respondents assess (evaluate, feel) the characteristics	Code	Category	Family	Characteristic 2 (2 nd important)	Indicator 2	Code	Category	Family
Purple Haze is the best variety. The first reason is its Heaviness . This is determined by ' weighing ' (makes balancing action with hands) the roots by holding them in the hands. Secondly, is when you bite the roots, the ones with less water will make the better gari.	Heaviness (or Heavy)	weighing (makes balancing action with hands) the roots by holding them in the hands	Heaviness	Weight	Post-harvest characteristics	Less water	When you bite the roots	Water content	Physico-chemical characteristics	Post-harvest characteristics
Idileru. 'Epo re daa. O ma bo fereferere, ma bo dadaa ni. Ti onia ba kan t'o fi ekanna sinu e, to ba wole ko da, ti ko ba wole, oda'. i.e. Idileru. First, skin/peel is clean and very attractive . Secondly, the root has to be easy to peel and unwrap . Thirdly, is less water . To recognize a good root, the fingernail is used to pierce the root: if the fingernail goes easily into the flesh, it means it has a lot of water and not good for gari if otherwise, it is good for gari.	skin/peel "clean" "very attractive"		Cleanliness of peel/ skin	Appearance	Technological characteristics	Easy to peel	No Response	Easiness to peel	Processing ability	Technological characteristics

7.5. Analysing the data by priority (ranking) (Column D in WP1 product profile)

Using data from the individual interviews:

Produce a pivot table in Excel to identify the frequency of citations (count) for characteristics that were ranked as 1st priority, ensuring you disaggregate by gender.

See **Figure 2** and **Figure 3** below. **The percentages** can be calculated for the counts obtained, whereby it becomes clearer that “Healthy sucker”, is the most important 1st characteristic, “Big sucker” is important as 2nd and 3rd characteristic, as well as “Good greenery”.

Insert-pivot table-new worksheet. On the right, you will see a list of fields with your column headings. Move the ‘Code for 1st priority’ to the bottom right fields to ‘Row’. Move ‘gender’ to ‘Column’ (or whichever variable you are disaggregating by). URL: <https://edu.gcfglobal.org/en/excel2013/pivottables/1/>

Repeat the pivot table to characteristics ranked 2nd and 3rd priority by gender (if applicable). Then repeat the process for district/region, ethnicity etc.

Figure 2 Example one: final coding and counts for most important (1st priority) characteristics of boiled cassava in Benin by gender

	A	B	C	D
1	Nombre de Interviewés	Étiquettes de colonnes		
2	Étiquettes de lignes	Femme	Homme	Total général
3	Couleur blanche	2	3	5
4	Couleur rouge noir jaune		1	1
5	Court	3		3
6	Grande taille	1		1
7	Gros	19	11	30
8	La peau ne doit pas etre Kachakacha		1	1
9	Laboko		2	2
10	lisse	4		4
11	Long	6	3	9
12	Lourde		1	1
13	Pas de mossaure de rat		1	1
14	peau lisse	8	2	10
15	peau fine	1	1	2
16	Vivant	5	1	6
17	Total général	49	27	76
18				

The percentages can be calculated for the counts obtained, whereby it becomes clearer that “Healthy sucker”, is the most important 1st characteristic, “Big sucker” is important as 2nd and 3rd characteristic, as well as “Good greenery”.

Figure 3 Example two: Counts for priority 1, 2 and 3 plantain characteristics by gender

Count	Female	Male	Female	Male	Female	Male
	1st	1st	2nd	2nd	3rd	3rd
Healthy sucker	4	10		4		2
Originates from a good trunk		4	2			2
Big sucker	4		2	8	2	4
No holes in sucker	2				2	4
Robust sucker		2	2			
Large bottomed sucker		2				
Good greenery			2	2		6
No caterpillars		4		2		
It must be good looking				2		
Medium sized sucker (70cm)				2		
Large red-bottomed sucker				2		
Small sucker						2
Total replies	10	22	8	22	4	20

Percentage	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)
	1st	1st	2nd	2nd	3rd	3rd
Healthy sucker	40%	45%		18%		9%
Originates from a good trunk		18%	20%			9%
Big sucker	40%		20%	36%	20%	18%
No holes in sucker	20%				20%	18%
Robust sucker		9%	20%			
Large bottomed sucker		9%				
Good greenery			20%	9%		27%
No caterpillars		18%		9%		
It must be good looking				9%		
Fresh sucker						
Medium sized sucker (70cm)				9%		
Large red-bottomed sucker				9%		
Small sucker						9%
Total replies	100%	100%	80%	100%	40%	91%

NB. (a) Percentages have been rounded.

(b) Percentages have been calculated based on the total number of respondents (10 in the case of women, and 22 in the case of men).

To aggregate the characteristics into one table, we need to give each of them a weight according to how they were prioritised and the importance they were given by respondents. This will help WP2 and other WPs identify what characteristics they will prioritise for their work. We can also compare different priorities for men and women, or different regions, to see how the importance of characteristics differed.

To apply weights, multiply the frequency (count) for the most important characteristic (1st priority) by 3, the frequencies for the second priority characteristic by 2, and the frequencies for the third priority characteristic by 3. The result will be weighted scores which can be summarised and ranked as in Fig. 4.

For each characteristic, add up the total 'points' from men and women to get a final score. Sort the characteristics by descending final scores.

Once completed for characteristics ranked 1, 2 and 3, you can complete columns B and D in the WP1 product profile table.

Figure 4 Example one: characteristics cited by gender in 1st priority (left), and multiplied by 3 (weight for 1st priority) (right)

	Femme	Homme	Total général		Femme*3	Homme*3
Belle peau	3	1	4	Belle peau	9	3
Couleur blanche	2	3	5	Couleur blanche	6	9
Couleur rouge noir jaune		1	1	Couleur rouge noir jaune	0	3
Court	3		3	Court	9	0
Feuilles longues		1	1	Feuilles longues	0	3
Forme moyenne	1		1	Forme moyenne	3	0
Gros	16	11	27	Gros	48	33
Long	7	3	10	Long	21	9
Longueur feuilles homogène	1		1	Longueur feuilles homogène	3	0
Lourd		2	2	Lourd	0	6
Peau fine	1	1	2	Peau fine	3	3
Peau lisse	8	2	9	Peau lisse	24	6
Peau noire		1	1	Peau noire	0	3
Tête grosse	1		1	Tête grosse	3	0
Vivant	4		4	Vivant	12	0

Figure 5 Example two: weighted characteristics for 1st, 2nd and 3rd priority (count in Figure 2 multiplied by weight 3, 2 or 1), by gender

Weighting characteristics by sex	Fem ale	Male	Fem ale	Male	Fem ale	Male	Summary score		Ranked priorities	
	1st (x3)	1st (x3)	2nd (x2)	2nd (x2)	3rd (x1)	3rd (x1)	Fem ale	Male	Fem ale	Male
Healthy sucker	12	30		8		2	12	40	2	1
Originates from a good trunk		12	4			2	4	14	4	4
Big sucker	12		4	16	2	4	18	20	1	2
No holes in sucker	6				2	4	8	4	3	8
Robust sucker		6	4				4	6	4	6
Large bottomed sucker		6						6		6
Good greenery			4	4		6	4	10	4	5
No caterpillars		12		4				16		3
It must be good looking				4				4		8
Medium sized sucker (70cm)				4				4		8
Large red-bottomed sucker				4				4		8
Small sucker						2		2		12

Remember to analyse the results for men, women, and region separately!

7.6. Analysis

Identify what population segment you will look at (women, men, region/district X, region/district Y, ethnic group A, ethnic group B).

Filter the responses by gender, region/district, ethnicity and other factors of social difference.

Create a Food Product Profile table for each, including all characteristics and priorities. The codes and indicators can then be inserted into the appropriate columns (B and C) in the WP1 product profile, with reference to where they were derived (e.g. FGD women, II women, II district x).

Indicate which characteristics are ranked 1, 2 and 3 for that particular population segment.

Compare different responses and preferences between individuals and groups. For example – one person may prefer very sour gari and another may not. Then you will need to further investigate the data: are there very diverse preferences for sourness? Are two groups of preferences coming out (sour and not so sour)? What does sour and not so sour mean and how do you achieve it in a product? Are preferences related to specific districts, ethnicity or gender?

Following this, a summary table will need to be produced that takes into account gender, social difference and region.

7.7. Varieties

This section explains the extraction and summarization of data on good and inferior varieties (columns G and H). Only use data from individual interviews.

This is priority data for WP4.

Note: the question numbers are unlikely to match with your questionnaire because they have been adapted. Please match the text of the question to your questionnaire.

Relevant questions:

- *In your opinion, what variety(ies) give the highest quality [product under study]? Why? (Individual Interviews)
- Are there [crop] varieties that are less preferred in the community? Why? (focus group discussions)

Tables (and text in the report) should compare findings by gender, region/district and relevant social segments:

Table 5 provides the list of varieties that give the highest quality product and the percent it was cited, by gender and other factors of social difference.

Table 5: Percentage of citations of varieties that give the highest quality product (II Q19)

Variety* **	Total %	% women	% men	Region x	Region Y	Ethnic group X	Ethnic group Y	FHH	MHH
Lanboko (L)									
Kpeté (N)									
Aklachi (I)									
Kokoro (L)									

* Include variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability

Table 6: Less preferred varieties (FGD 6. B)

Importance	Total citations out of 8 FGDS	Total citations in 8 female FGDS	Total citations in male FGDS	Region x	Region Y	Ethnic group X	Ethnic group Y
Lanboko (L)	8	4	4	8	0	8	0
Kpeté (N)	7	3	4	7	0	7	0
Aklachi (I)	6	3	3	0	6	0	6
Kokoro (L)	6	5	1	0	6	0	6

* Include variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability

8. DATA ANALYSIS AND REPORT TEMPLATE

8.1. How to use this template

The report structure is divided into two sections:

- Socioeconomic context and product preferences report: findings from the KI, FGDs
- Market report: findings from the MI and other relevant data

Headings are provided to group responses from questions from each of the tools: Key Informant Interviews (KII), Focus Group Discussions (FDG), Individual Interviews (II) and Market Interviews (MI).

Priority questions to analysis are marked “Priority Questions”. If the team has time constraints for reporting, focus on presenting and writing up the analysis to these questions.

There are some areas where the same questions were asked in the tools. This is to triangulate the findings and increase confidence in the findings. When this happens, compare and contrast findings between the different tools and highlight where the data agrees or disagrees.

Also, data from one of the tools may also be better compared to the others. If this is the case, use the best data source.

Question numbers will differ with your questionnaire - please match the text of the question as opposed to the number. If the question is not relevant to your product, skip to the next question.

Guidance is provided on the analysis of each question, specifically if it can be analysed quantitatively or qualitatively and each of the different steps. The most important things to remember for analysis, are:

- What are the reasons behind the findings?
- What were the similarities and differences in responses by communities, gender, region, social segments?
- Provide examples and quotes to provide evidence
- If possible, highlight any implications of the findings on social segmentation and livelihoods on food/product characteristics.

Guidance on how to evidence the findings is provided. This can be in the form of tables for quantitative data or summary text, along with text describing the key findings from the analysis.

Good luck!

8.2. Findings: socio-economic context and product preferences

Social segmentation and livelihoods

AT A MINIMUM, ANSWER 1-2 OF THE QUESTIONS IN THIS SECTION (in BOLD). FOCUS ON WHERE THERE IS THE BEST QUALITY DATA, IDEALLY WITH TWO TOOLS TO INCREASE CONFIDENCE IN RESPONSES.

What are the different groups of people in your community? (Probe gender social segmentation). What is the relative proportion of the community population in each of the categories? KII Q2

Analyse qualitatively by reviewing and summarising each of the responses from the 8 KIIs. Provide a table that summarises the responses from each FGDs as below but make sure to include any differences within the KIIs. Add quotes if possible.

Table 7: Social segments (KII Q2)

Community name	Social segments (%)
Community 1	Ethnicity: Yoruba (90%), Iggede (10%) Wealth: Very poor (15%), Poor (20%), Moderate wealth (60%), very wealthy (5%) Household headship: female headed (15%), child headed (5%), male headed (80%)
Community 2	
Community 3	
Community 4	
Community 5	
Community 6	
Community 7	
Community 8	

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities/gender/ethnicity/? Are there regional patterns? Add quotes to illustrate a common or unusual response. See suggested text below.

Example text on social segmentation:

Overall, the communities were very diverse. The key informant interviews revealed that most of the communities distinguished differences in their community by wealth status and ethnicity. The Iggede ethnic group was often cited as a minority ethnic group among the sample communities. This group is considered to be non-indigenous to Yoruba land, despite some members of the community having long-term residence in the community, because they have immigrated from Benin in search for work.... Etc etc....

What are the livelihood activities of people in the community involving food crops? How important are these activities for people in the community? FGD Q2

Analyse qualitatively by reviewing and summarising each of the responses from the 8 FGDs. Provide a table that summarises the responses from each FGDs as below but make sure to include any differences within the FGD. Add quotes if possible.

Table 8: Livelihood activities (FGD Q2)

Male/female FGD + Community name	Livelihood activities and people they are important for
Women's FGD, Ikpele	Farming (all), coffee plantations (men), artisan work (older women), tailoring (women), driving (young men),
Men's FGD, Ikpele	
...	
...	

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response

Example text on livelihoods:

Farming was the core livelihood activity for all communities in the sample, and included all household members, regardless of gender or age. However, most communities had over five different types of livelihood activities that provided additional income to some households, which were clearly marked by differences in gender and age. For example, in two of the communities, older women performed artisanal work, as it was considered as an activity that could bring some income and did not involve strenuous work, as the quote below demonstrates. Etc. etc.

"Most older women in this community weave mats to be sold at the roadside. This is because it brings some money to the house but doesn't need energy" (male FGD member, Ikpele, Benin).

In your community, are there different levels of farmers? What are the levels? How is farming related to wealth (e.g. can you have rich and poor farmers? (Note these descriptions to refer to throughout the FGD). (Probe using examples of social segmentation - gender, ethnicity, age). FGD Q3

AND / OR

In your community, are there different types of farmers? How are they different? How is farming related to wealth (e.g. can you have rich and poor farmers)? KII Q3

Analyse qualitatively by reviewing and summarising each of the responses from the 8 FGDs. Provide a table that summarises the responses from each FGDs as below but make sure to include any differences within the FGD. Add quotes if possible.

Table 9: Farmer categories (FGD Q3 OR KII Q3)

Male/female FGD + Community name	Categories mentioned in FGDs
Women's FGD, Ikpele	Very poor (15%) : wage labourers, women and child headed household. No land. Poor (20%) : wage labourers but have their own land. Mostly women Moderate wealth (60%) : farmers but also off-farm employment. Sell the majority of their produce. Very involved in coffee farming. Very wealthy (5%): own a car and motorbike, pay others to far
Men's FGD, Ikpele	
...	
...	

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Next, compare and contrast information of the FGDs with the KIIs. Add description or identify differences in the text summary.

Example text on wealth categories:

The key informant interviews revealed striking similarities in how they defined wealth categories in the community, with all citing 'very poor, poor, moderate wealthy, very wealthy'. Despite the similarities in category, there were some slight differences in terminology. For example, in one community, 'very poor' was called XXX, which meant X. The use of this term indicates the low social status of this group and relates not just to wealth but also a poor reputation in the community.

Farming practices and social segmentation

AT A MINIMUM, SUMMARISE THE FARMING PRACTICES IDENTIFIED IN EACH OF THE COMMUNITIES, NOTING GENDER DIFFERENCES ON SHARED OR SEPARATE PLOTS. THESE FINDINGS CAN BE IMPORTANT FOR BREEDERS.

Do all farmers in your community farm in the same way? FGD Q 4.1

Who does these different practices? Probe social segments. FGD Q4.2

Analyse qualitatively by reviewing and summarising each of the responses from the 8 FGDs. Provide a table that summarises the responses from each FGD as below but make sure to include any differences within the FGD. Add quotes if possible.

Table 10: Farming practices (FGD Q4)

Male/female FGD + Community name	Farming practice (Q4.1)	People who practice (Q4.2)
Women's FGD, Ikpele	Intercropping, planting in ridges (<i>"we plant in ridges because they are less expensive to hire labour compared to mounds"</i>)	Women, migrant households
Men's FGD, Ikpele	Monocropping, planting in mounds	Men
...		
...		

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Example text: women in the community have household plots and prefer to plant sweet potato on ridges because of irrigation efficiency, and to make weeding easier. Men on the other hand are more likely to share efforts on group plots, particularly for crops with commercial value.

Do men and women farm on separate plots or shared farms in this community? If separate, what are the differences and similarities between men and women's plots? If shared, what proportion are each? If men and women farm together, are there differences in the type of work that men and women do? FGD 4.3

Analyse qualitatively by reviewing and summarising each of the responses from the 8 FGDs., p
Provide a table that summarises the responses from each FGD as below but make sure to include any differences within the FGD. Add quotes if possible.

Table 11: Differences in men and women's plots (FGD 4.3)

Male/female FGD + Community name *	Women's plots	Men's plots
Women's FGD, Ikpele		
Men's FGD, Ikpele		

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Important crops in the community

All questions in this section are a priority.

Priority question: What are the three most important crops for people in your community, in order of importance (1 is most important)? FGD 5.1

As explained in the [Step 2 Priority Data Guidance document](#) Section 7 for characteristics, use the same method but apply to crops. Apply weights for the crops based on their ranking, first by gender, then by region/sub-region, and other important factors of social difference:

- To apply weights, multiply the frequency (count) for the most important crop (1st priority) by 3, the frequencies for the second priority crop by 2, and the frequencies for the third priority crop by 1. **If you can or want to do more than 3 crops, then change the weights accordingly. The result will be weighted scores, which can be summarised and ranked as in the table below.

Count	Female	Male	Female	Male	Female	Male
	1st	1st	2nd	2nd	3rd	3rd
Yam	4	10		4		2
Cassava		4	2			2
Banana	4		2	8	2	4
Sorghum	2				2	4
Millet		2	2			

- For each crop, add up the total 'points' from men and women to get a final score. Sort the characteristics by descending final scores.
- Show at least the top three rankings, but if possible – show complete list.

Count	Female	Male	Female	Male	Female	Male	Summary score		Ranked priorities	
	1st (x3)	1st (x3)	2nd (x2)	2nd (x2)	3rd (x1)	3rd (x1)	Female	Male	Female	Male
Yam	12	30		8		2	12	40	2	1
Cassava		12	4			2	4	14	4	3
Banana	12		4	16	2	4	18	20	1	2
Sorghum	6				2	4	8	4	3	5
Millet		6	4				4	6	4	4

These calculations can produce a final table such as the following:

Table 12: Important crops in rural communities (FGD 5.1)

Crop importance	Women	Men	Region X	Region Y
1 st	Banana	Yam		
2 nd	Yam	Banana		
3 rd	Sorghum	Cassava		
4 th	Millet + Cassava	Millet		
5 th		Sorghum		

Provide text to summarise the findings from the table. What are the differences by gender, region, ethnicity etc.? Use the responses to the question below for more detail on the reasons for the trends.

Priority question:

Why are those crops important? FGD 5.2

Are there groups of people in the community for whom the crop is more important? (Probe differences in social segments) FGD 5.3

Review responses from the 8 FGDs. CODE all of the reasons why a particular CROP was preferred. In a table such as the one below, list the crops in one column, then the reasons why it was important with the FGD citation (e.g. women's FGD, Doma). Then CODE all the people who the crop was important for and place in another column. Repeat for the crops.

Table 13: Reasons why the crop is important and for who (FGD 5.2 and 5.3)

Crop	Reasons why the crop is important (FGD 5.2)	People for who the crop is important (FGD 5.3)
Yam	Money (men's FGD Ikpele) Food to eat (men's FGD Doma)	Men (all FGDs)
Tomato	Money (women's FGD Doma)	Women (all FGDs)
Coffee	Money (men and women's FGD Ikpele and Doma)	The household (Women's FGD Ikpele)

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? What are the differences by gender, region, ethnicity etc.?

Example text:

There were clear differences in responses in the three most important crops by gender. For example, overall cassava ranked as the most important crop for women focus groups (cited by 5/8 FGD as number 1), while it was ranked second for men's focus groups. The reasons provided in women's FGDs for cassava ranking the highest was related to its importance for their income, as demonstrated in the quote below:

"Cassava is the most important for me, and many other women in my community. This is because we mainly do gari business here. We can pick it, process it, sell it and feed the family" (female respondent, FGD Ikpele).

Priority question:

If the crop for the product under study is not included: we noted that this discussion didn't mention [crop under study]. Where would this crop rank in importance? Why? FGDs 5.4

In text, describe the reasons that the respondents gave of why the crop under study was not included as an important crop. Include references of which FGDs made specific statements. What are the differences by gender, region, ethnicity etc.?

Crop of focus

Priority question: *Please describe how the crop is generally grown in this community (KII Q4)

Priority question: * Out of all the farmers in your community, how many people grow [the crop] (% or what number out of 10 stones)? Who doesn't grow the crop, and why? (KII Q5)

*** Thinking about the average household in your community, how much of the crop is used for a) home consumption, b) selling product under study, c) other products (ensure you include the name of the other products). Facilitator can use ten stones as an example. (KII Q8).**

Analyse the above questions qualitatively by reviewing and summarising each of the responses from the 8 KIIs. Provide a table that summarises the responses from each FGDs as below but make sure to include any differences within the KIIs. Add quotes if possible.

Table 14: Differences in men and women's plots (KII Q4, 5 and 8)

Community	Description of how the crop is grown	Proportion (%) of people in the community who grow the crop	Proportion (%) of the crop that the average household uses for making the product
Community 1			
Community 2			

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Varieties of the crop and planting material

Note this section is about the CROP IN GENERAL – which includes all its uses and not specific to the product.

***This section has the same questions in II and FGD for triangulation. It is best practice to present findings from both tools, as the II can show quantitative data and FGD greater detail with quotes. However, as stated at the start of this section, if you have better data in one method compared to the other – use the one with better data.**

What are the varieties of the [crop under study] that you grow? Rank in order of importance 1=most important. (Note local and technical name – verify with key informant) II Q15.1

As explained in the [Food Product Profile Guidance](#) in section 7 for characteristics, apply weights for the varieties based on their ranking, first by gender, then by region/sub-region, and other important factors of social difference:

- To apply weights, multiply the frequency (count) for the most important variety (1st priority) by 3, the frequencies for the second priority variety by 2, and the frequencies for the

third priority variety by 1. **If you can or want to do more than 3 varieties, then change the weights accordingly. The result will be weighted scores, which can be summarised and ranked as in the table below.

- For each variety, add up the total 'points' from men and women to get a final score. Sort the varieties by descending final scores.
- Show at least the top three rankings, but if possible – show complete list.

Table 15: Varieties grown in order of importance (II Q15.1)

Importance	Women	Men	Region x	Region Y	Yoruba (minority)	Igede (majority)	7	8
1	Klachi (N)	Kokoro (L)						
2	Kokoro (L)	Aklachi (I)						
3	Lanboko (L)	Mado (N)						
4	Kpeté (N)							

** Include variety names and indicate if local or released variety (and year it was released)*

In the text, summarise the varieties that were grown. What are the major differences and similarities in responses between communities? Are there regional patterns?

Then, compare the previous findings to FGD 6.1 and note any differences in responses or findings, using the same approach of weighting.

- **What are all of the varieties of [crop under study] grown in this community? Rank in order of importance 1=most important (Note local and technical name – verify with key informant) FGD Q6.1**

Table 16: Varieties grown in the community and ranking in order of preference (FGD 6.1)

Importance	Men's FGD	Women's FGD	Region X	Region Y
1				
2				
3				
4				
5				
6				

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response

Priority question: Why do you grow this variety? II Q 15.2 a+b

Analyse the content of the response qualitatively, through coding, comparing and contrasting, and summarising. Use quotes to illustrate different points of view.

For the responses from the II, CODE all of the reasons why a particular variety was preferred. If possible with the data you have, count the frequency that the group who the product is important for is mentioned in the female II, then the male II, followed by region X and region Y, such as the table below. Repeat for the different products.

Table 17: Reasons why the variety is grown (II Q15.2).

Variety* ** and products	Reasons why preferred	% of women citing	% of men citing	Region x	Region Y	Ethnic group 1	Ethnic group 2
Klachi (N)	Easy to peel	80	2				
Gari, boiled	“don’t get too big so can carry”	75	5				
	makes good gari – “sweet”	50	87				
Kokoro (L)	Can be eaten raw						
Consumed raw	High yielding						

* Include variety names and indicate if local or released variety (and year it was released)

In the text, summarise why these varieties were grown and/or preferred, and add detail from FGD Q6.2: **Why do people plant this variety? (Open response) FGD Q6.2 and - is this variety good for this purpose? If yes, why? FGD Q6.3**

Comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

What varieties does your spouse grow? What varieties does your spouse prefer? (II Q 15.4)

Analyse qualitatively by reviewing and summarising each of the responses from the IIs. Add quotes if possible.

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Are there [crop] varieties that are less preferred in the community? Why? FGD 6.b.

Analyse qualitatively by reviewing and summarising each of the responses from the FGDs. Add a table to illustrate if you wish. Add quotes if possible.

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Planting material

From what source did you receive this planting material? (specify if they received it, from whom directly, and if third party) II Q 15.3

For the responses from the II, CODE all of sources of planting material cited. If possible with the data you have, count the frequency that the group for whom the product is important is mentioned in the female II, then the male II, followed by region X and region Y.

Table 18: Source of planting material (II Q15.3)

Source of planting material	II Q		FGD Q					
	% of women citing N=	% of men citing N=	Region x	Region Y	Ethnic group 1	Ethnic group 2	Female headed	Male headed
Husband	80	2						
Friends	75	5						
Extension agent	50	87						
Purchased								

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Which factors/challenges could be limiting use of improved crop varieties in this community? And, how have these been addressed? KII Q7

Analyse qualitatively by reviewing and summarising each of the responses from the KIIs. If it helps the analysis, provide a table with each row summarising the response from each KII. Add quotes if possible.

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Important characteristics of the crop (in general not specific to the product)

***This section has the same questions in II and FGD for triangulation. It is best practice to present findings from both tools, as the II can show quantitative data, and FGD greater detail with quotes. However, as stated at the start of this document, if you have better data in one method compared to the other – use the one with better data.**

The characteristics cited in this section are very important – as this is where you see how the importance of product-specific characteristics compare to other considerations such as the yield or storability. It tells us A LOT about farmer priorities.

Relevant questions from II:

What are the most important characteristics that would make it a good crop you would use? **OPEN QUESTION NOT SPECIFIC TO A PRODUCT. Rank in order of importance. The question aims to understand the indicator the participants use to assess a good crop – (agronomical characteristics, post-harvest characteristics: morphological and storability characteristics, technological characteristics) II Q14.1 and 14.2

As explained in the [Step 2 Priority Data Guidance document Section 7](#) for characteristics, apply weights for the characteristics based on their ranking, first by gender, then by region/sub-region, and other important factors of social difference:

- To apply weights, multiply the frequency (count) for the most important characteristic (1st priority) by 3, the frequencies for the second priority characteristic by 2, and the frequencies for the third priority characteristic by 1. **If you can or want to do more than 3 characteristics, then change the weights accordingly. The result will be weighted scores, which can be summarised and ranked as in the table below.
- For each characteristic, add up the total 'points' from men and women to get a final score. Sort the characteristics by descending final scores.
- Show at least the top three rankings, but if possible – show complete list.

Table 19: Characteristics of a good crop (II Q14)

Importance	Women	Men	Region x	Region Y	Yoruba (minority)	Igede (majority)	Female headed	Male headed
1	Easy to peel	High yield	Good gari					
2	Medium yield	Disease resistant	High starch					
3	Good gari	High starch	High yield					
4	Disease resistant	Good gari	Disease resistant					
5	Storability in the field		Storability					
6								

Compare findings from II to the following FGD 7.1 and 7.2 and note any differences in responses or findings, using the same approach of weighting the crops by their priority. OR use one or other method depending on quality of data.

- **What are the characteristics of the crop that would make it a good crop? Open Question. FGD Q7.1**
- **What are the most important? Rank in order of importance. The question aims to understand the indicator the participants use to assess a good crop – (agronomical characteristics, post-harvest characteristics: morphological and storability characteristics, technological characteristics) FGD Q7.2**

Table 20: Most important crop characteristics in order of preference (FGD Q7.1)

Importance	Men's focus groups	Women's focus groups	X region	X region
1	Easy to peel	High yield		
2	Medium yield	Disease resistant		
3	Good gari	Storability		
4				
5				
6				

Comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Do you think these would be different characteristics/criteria for your spouse? Why or why not? II Q14.3

Analyse qualitatively by reviewing and summarising the responses from the IIs.

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Uses of the Crop

Priority question: List all the products from the crop FGD Q8.1

*** What are the main important characteristics of the crop for this product? FGD 8.3**

Make a list of all the products mentioned in the FGD.

Analyse 8.3 qualitatively by reviewing and summarising each of the responses from the 8 FGDs. Provide a table that summarises the responses from each FGD as below but make sure to include any differences within the FGD.

Table 21: Summary table of products and important characteristics (FGD Q8.1 and 8.3)

Product	Men's FGD	Women's FGD	Region X	Region Y
Gari				
Lafun				

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

*** What are the main important characteristics of the crop for this product? II Q16.4**

Create one table per product mentioned in 16.1. For the first product, CODE all of characteristics and list in the first column of the table. Secondly, count the frequency of citations of each of the characteristics in the female II, then the male II, followed by region X and region Y. Repeat for the products.

Table 22: Frequency of citations of groups that X product was mentioned as important for by sex and region (II 16.4)

Characteristic	% of women citing N=	% of men citing N=	% of Region X citing N=	% Region Y citing N=

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities/gender/ethnicity/? Are there regional patterns?

Labour

There are the same questions in the II and the FGD. Choose either one to analyse where you have the best data. If you have time and good data for both, show both.

II questions:

***this question may not be in all questionnaires... Who ;sells the products in your household?**
Probe household members, gender, age (II Q16.2 revised questionnaire)

Are there people in your household that take most of the decisions regarding the [product]?
Probe household members, gender, age (II Q16.3 original or 16.2 revised)

Using responses from II, create a list of all the products mentioned in 16.1. Make one table per product. CODE all of the people who produce/process/sell the product. Count the frequency of citations of people mentioned for that product in the female II, then the male II, followed by region X and region Y. Repeat for the products.

Table 23: Frequency of citations of people who sell the product by sex and region (II Q16.2)

People who sell the product	% of women citing N=	% of men citing N=	% of Region X citing N=	% Region Y citing N=
Men				
Women				
Men and women				
Children				
Youth (male)				
Youth (female)				
Youth (general)				
Elderly				
Widows				
Everyone				

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities/gender/ethnicity/? Are there regional patterns?

FGD questions:

Review the responses from the same questions in the FGDs:

In your community and in general, who sells the products? Probe household members, gender and social segments FGD Q 8.2

Add any detail or examples to the write up for the IDIs. If you have time, summarise the responses from the FGDs in a table, such as the one below.

Table 24: Persons responsible for processing and selling X product (FGD 8.2)

Male/female FGD + Community name *	Persons responsible for selling
Women FGD, Ikpele	Women and young girls. Often these girls are not the
Men FGD, Ikpele	Women. Any man would not let his daughter sell. If they do it is because they are very poor.
...	
...	

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Decision making and trade-offs between the different uses of the crops

Note: there may be slight differences in question phrasing or the question numbers with your questionnaire. Use the analysis here as guidance.

Priority questions:

What is your level of independence in making decisions regarding... II Q31

32.1 what [variety of crop] material to plant

32.2 a) use of crop (what product)

32.2 b) Marketing

32.3 use of profits from sale of [product under study]

32.4 use of profits from sale of alternative product sold from [crop under study], if different household member (e.g. fresh)

Analyse the data quantitatively by averaging the scores between 1 and 4 by sex of the respondents and region. Ethnicity is also an important variable to see differences in decision making.

Table 25: Mean score of independence in decisions by sex and region (II Q31)

Decision	Mean score of independence 1-4*			
	Women	Men	Region X	Region Y
Variety of crop to plant	2.3	4		
Use of crop	2.0	4		
Marketing	4.0	2.1		
Use of profits from sale of [specify product]	3.1	2		
Use of profits from sale of alternative product	3.1	2		

*Legend

1=no independence; the decision is made by someone else

2=a little independence to suggest ideas but decision is taken by someone

3=most independent but need to consult someone

4 = complete independence.

In text, comment on the level of diversity or homogeneity of the responses. Are women more likely to cite that they make the decisions? Or are men? Are there differences in decision making patterns by region or ethnicity? Or are there consistent responses overall? What are the major differences and similarities between communities? Add quotes to illustrate a common or unusual response.

Are there people in your household that take most of the decisions regarding the [product]? Probe specific household members, gender, age. Please describe. II Q16.3

Review the responses from II, and CODE all the household members who make decisions regarding the product (e.g. men, women, men and women, children, etc.). This list can go in the first column of the table. Make a table for each product. Secondly, count the frequency of citations of people who make the decisions on the product in the female II, then the male II, followed by region X and region Y. Repeat table for all the products.

Table 26: Frequency of citations of people who make decisions on X product by sex and region (II Q16.3)

People who make decisions on the product	% of women citing N=	% of men citing N=	% of Region X citing N=	% Region Y citing N=
Men				
Women				
Children				
Youth (male)				
Youth (female)				
Youth (general)				
Elderly				
Widows				
Everyone				

Priority question: * How were decisions made on how the crop would be used among the different products? About what is consumed at home or sold? II Q17.1

The question can be analysed qualitatively or quantitatively, depending on your data (rich description or short remarks).

To analyse quantitatively, responses can be coded and the frequency of citation can be calculated by sex and region, as shown in previous sections.

Analyse the content of the response qualitatively (use coding, comparing and contrasting if possible). Summarise the responses and use quotes to illustrate different points of view.

What are the types of factors that people consider before they harvest? Are there certain groups of people who are more likely to cite certain reasons, e.g. female respondents more likely to report 'school fee costs' as a reason for harvesting in contrast to men who said 'good price'?

What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Choose to analyse one the questions below, depending on where you have the best data. If you have time, and both sets of data are good, please answer both:

***In your community, if the crop is used for different purposes and products, does it happen that there is disagreement on how the crop is used? FGD Q9**

There may not have been many responses to the question or sufficient level of detail.

Analyse the content of the response qualitatively (use coding, comparing and contrasting if possible). Summarise the responses and use quotes to illustrate different points of view.

Comment on the level of diversity or homogeneity of the responses. Did the majority of people say that there are or are not disagreements? Why? If there are disagreements, please describe the different scenarios of when this happens. Are there certain groups of people whom the scenarios are more or less likely to impact? E.g. the poor?

***Have there ever been challenges or disagreements in the household about these decisions? Please explain. II Q17.32 E.g. For example, in some areas, men may prefer to sell the crop fresh while women prefer to sell the crop processed. This is linked to who has control over the product's sale and profit.**

Quantify 'Yes - there have been challenges or disagreements' and 'No - there have not been challenges or disagreements' responses by sex, region and ethnicity (as relevant to your study).

There may not have been many responses to the question or sufficient level of detail.

Identify where an individual has responded. Analyse the content of the response qualitatively (use coding, comparing and contrasting if possible). Summarise the responses and use quotes to illustrate different points of view.

In text, comment on the level of diversity or homogeneity of the responses. Did the majority of people say that there is or is not disagreements? Why? If there are disagreements, please describe the different scenarios of when this happens. Are there certain groups of people for whom the scenarios are more or less likely to impact? E.g. the poor?

What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Household food budgeting

Obtaining good data on these questions is difficult. Try to answer the questions in this section but if the data don't support that, focus on the questions for which you have the best data.

Thinking about when you harvest the [crop under study]. How much of the harvest was used for consumption at home? As what product? (kg ortonnes) (II Q34.1)

Analyse the question quantitatively, identifying the range of responses, mean response and % of total harvest (if data available), by sex, region and other relevant factors of social difference such as land size (with band size as you determine appropriate).

Table 27: Quantity of harvest used for home consumption by sex and region (II Q34.1)

	Women	Men	Region X	Region Y	Land size category (indicate ha or ac)		
					-2	2-5	5+
Range (kg or tonnes)							
Mean (kg or tonnes)							
% of harvest							

In text, summarise the types of products that are used for home consumption and indicate if there are differences by region, ethnicity etc. Comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

How much of the harvest was sold? (kg or tonnes) Fresh or processed into what product(s)? To what market(s)? Probe between rural or urban market, trader, restaurant, food vendor, large company. II Q34.2

Analyse the question quantitatively, identifying the range of responses, mean response and % of total harvest (if data available), by sex, region and other relevant factors of social difference such as land size.

Table 28: Quantity of harvest sold by sex and region (II Q34.2)

Product (fresh or processed)		Women	Men	Region X	Region Y	Land size category (ha or ac)		
						-2	2-5	5+
Fresh	Range (kg or tonnes)							
	Mean (kg or tonnes)							
	% of harvest							
Gari	Range (kg or tonnes)							
	Mean (kg or tonnes)							
	% of harvest							
Lafun	Range (kg or tonnes)							
	Mean (kg or tonnes)							
	% of harvest							

In text, summarise the different markets that respondents are selling to and indicate if there are differences by region, ethnicity etc. Comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

When has the market situation, or where you sold, has been different? Under what circumstances? II Q 34.3

Analyse the content of the response qualitatively, through coding, comparing and contrasting, and summarising. Use quotes to illustrate different points of view.

There may not have been many responses to the question. However, with the data available examine if there have been situations when they sold to different markets or kept more of the crop for home consumption? Why? For example, they may have sold to a market further away because one closed down or you had to start paying a high market-membership fee. Perhaps one person mentioned they kept more crop at home because the harvest was poor due to a crop disease.

Priority question: Have changes in the production, processing or sale of the product affected you/your spouse/children? II Q35.1

Quantify 'Yes - there have been effects' and 'No - there have not been affects" responses by sex, region and ethnicity (as relevant to your study).

Analyse the content of the response qualitatively, through coding, comparing and contrasting, and summarising.

Are there situations where men, women, children, are helped or hindered by these changes? For example, changes to diet, labour, income?

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Priority question: Have there been any changes in the market or mechanization in your community? How has this affected your work? What about other groups of people? II Q35.2

Quantify 'Yes - there have been changes' and 'No - there have not been change" responses by sex, region and ethnicity (as relevant to your study).

Analyse the content of the response qualitatively, through coding, comparing and contrasting, and summarising.

Has workload and the level of exertion of the people involved in the labour of the product? Who does this impact?

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Preparation and processing the product

Priority question: *What are the processing and preparation steps for the [product]? FGD Q12

AND

Priority question: *Are there variations of the product and variations of the processing of the [product] in your community? Are the variations related to different varieties, food processes or food preferences? Please describe. FGD Q13.

Provide a **diagram and supportive text** explaining the processing and preparation steps from the product.

In the text, describe if there are differences in the steps between the groups. For example, men's FGDs may not have been able to describe the steps very well, compared to women's FGDs. This may reflect different roles of men and women in processing, and different levels of knowledge.

Describe if there are differences in the process by region, ethnicity and/or product variation. This is very important to show.

Who typically is involved in conducting this step? Probe: social segments and hired or household labour etc. e.g. female hired labourers; women and girls in the household FGD Q12.2

Using the data from the FGDs, add a description of who does the different steps of processing. Is it usually hired labourers? Are they male equipment managers that need to be paid? Describe any differences between the locations.

***What are the most important processing steps or parameters you need to control very well to obtain of high quality [product under study]? II Q22.**

CODE all of the steps mentioned in all of the responses and create a list. This list can go in the first column of the table. Secondly, count the frequency that the group who makes the decisions in the female II, then the male II, followed by region X and region Y. Repeat table for all the products.

Table 29: The most important (crucial) processing steps to obtain a higher quality X product cited by sex and gender (II Q22)

Most important processing steps	% of women citing N=	% of men citing N=	% of Region X citing N=	% Region Y citing N=

Processing resources and access

***What are the resources required for processing the [product]?(e.g. gari fryer, mixing bowls. Note if they are community or household based) FGD Q12.3**

If you require a number of resources [list] for processing the product, how do you access those resources? See codes 1 to 5 below. II Q33

In the left column of a table, list the equipment, utensils or other resources required for processing the crop into the product .

In the columns to the right, average the 'access' score between 1 and 4* by sex of the respondents and region. Ethnicity is also an important variable to see differences in decision making. See table below.

Table 30: Mean score of access (1-4*) to equipment or utensils required for processing the crop into the product by sex, region and ethnicity (II Q33)

Equipment or utensils required for processing the crop into the product	Mean score of access 1-4*					
	Women	Men	Region X	Region Y	Yoruba	Ethnic minority
Peeler	2.3	4				
Fryer	2.0	4				
Bucket	4.0	2.1				

*Legend

1-own outright, 2-use but wouldn't take in a divorce, 3-rent, 4-borrow from husband, 5-other

In text, comment on the level of diversity or homogeneity of the responses. What are the resources that have the least and most access, and for whom? What are the major differences and similarities between communities? Add quotes to illustrate a common or unusual response.

Add detail to the text using the responses from : **Do you experience any constraints in accessing these resources? Please describe. II Q33.2**

Processing challenges

Priority question: Are there any challenges you experience with processing and sale of the product? Please explain. Rank in order of importance 1=most important challenge. II Q26.

If the responses are sparse, summarise challenges and in what locations, and for whom.

However, if you collected sufficient data and a ranking of challenges use the weighting approach:

As explained in the Food Product Profile Guidance section 7, for characteristics, apply weights for the challenges based on their ranking, first by gender, then by region/sub-region, and other important factors of social difference:

- It is important that all challenges are listed, not just top three. Apply weights accordingly. If you are ranking 6 challenges, multiply the most important challenge by 6, the 2nd most important by 5, the third by 4 etc.
- For each challenge, add up the total 'points' from men and women to get a final score. Sort the characteristics by descending final scores.

Table 31: Processing challenges (II Q26)

Importance	Women	Men	Region x	Region Y	Yoruba (minority)	Igede (majority)	Female headed	Male headed
1								
2								
3								
4								
5								
6								

In text, comment on the level of diversity or homogeneity of the responses. What are the major differences and similarities between communities? Are there regional patterns? Add quotes to illustrate a common or unusual response.

Are there any gender needs (e.g. practical immediate needs, or strategic need that change their status)? E.g. if the participant answers 'money' or 'credit' – explore the reasons behind this and how the circumstances in the household or the community may lead to the situation.

Consumption of the product

Priority question: How is the [product] prepared? (immediately prior to consumption) (cooked into paste, added with water, with ingredients, boiled, steamed...) FGD Q16.1

Summarise the preparation of the product immediately prior to consumption in a table with each of the FGDs in a row.

In the text, describe differences and exceptions by gender, region, ethnicity, product variation etc. with the reasons why.

Priority question: What is the [product] consumed with? FGD Q16.2

Summarise the foods or ingredients or a sauce that the product is consumed with in a table with each of the FGDs in a row.

In the text, describe differences and exceptions by gender, region, ethnicity, product variation etc. with the reasons why.

Priority question: *When a person (you or a member of your family) says that the quality of the [product under study] is not good when they eat it, what are the general reasons for this? II Q30.

Summarise the poor sensory characteristics of a very bad product. Explain if the main reasons come from the crop variety, the harvest time of the crop, some processing steps, the processor's skill or time after product preparation or storage conditions... If there are differences by gender, region, ethnicity, product variation etc., show in a table and describe in the text.

Priority question: Thinking of people in your community, how often are the different products from the crop consumed? Is this the same for everyone in the community? Probe on social segmentation. How has this changed in the last five years? KII Q9.

Analyse the content of the response qualitatively. Compare and contrast answers from the key informants and summarise. Highlight different points of view or the consistency of responses. Use quotes to support.

Priority question: Thinking of people who buy the product, they may be outside of the community. Do you think people are buying more or less compared to five years ago? Why? (If required, probe using examples of social segmentation particularly gender, ethnicity, age, wealth status How has this changed in the last five years? Please describe. (An example of a response: Women felt they didn't have strength to pound yam so now there is more demand for pre-prepared pounded yam) KII Q10.

Analyse the content of the response qualitatively. Compare and contrast answers from the key informants and summarise. Highlight different points of view or the consistency of responses. Use quotes to support.

Are there any taboos, restrictions or beliefs of people in growing, processing or consuming the crop or its products? Please explain. (Some examples of responses are that women should not step foot on yam fields; or gari is good to consume for pregnant women and young children).KII Q11.

Are there any taboos or restrictions of people in growing, processing or consuming the crop or its products? Please explain. (Probe differences in social segments) II Q18.

To analyse responses to both questions, identify the KII or II that stated that there were taboos or restrictions, and if it refers to production, processing or consumption of the crop or product. Describe the responses in text and use examples that the respondents gave. Use quotes to illustrate different points of view. If there were no taboos or restrictions mentioned (and the question was asked of respondents) then write that in a statement.

Product characteristics

This section is priority and should be completed with the Food Product Profile already developed – and copy and pasted in this section with text to support.

The quality characteristics of a final product depend on the quality characteristics of the crop (raw material) and the how it is processed. You may distinguish the final processed product (for example raw gari e.g. dry gari) and the final prepared product ready to eat (for example gari cooked into eba or gari added with water and peanuts).

Please refer to the Food Product Profile Data Analysis Guidance in section 7.

Copy and paste the tables from the II, or put in the appendix if they are large:

- Summary table of Food Product Profile
- All women in the sample (from II)
- All men in the sample (from II),
- District or region X
- District or region Y
- other factors of social difference or product variation (e.g. religion, ethnicity). In many cases this may be more important than gender in identifying different sets of preferred characteristics

	A	B	C	D	E	F	G	H
	INDICATE IF TABLE FOR A SPECIFIC USER GROUP OR SUMMARY TABLE HERE: (e.g. men, women, Region 1, Region 2)	High quality characteristics <i>Characteristics that give a good, high quality product</i>	Indicator of high quality characteristic <i>Describe how the characteristic is assessed (e.g. feel, smell etc)</i>	Priority of high quality characteristic <i>Indicate the rank, and note if simple or pairwise ranking</i>	Low quality characteristics <i>Characteristics that give a poor quality product</i>	Indicator of Low quality characteristic <i>Describe (e.g. how sour)</i>	Varieties- GOOD <i>Variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability</i>	Varieties- INFERIOR <i>Variety names and indicate if local, released variety (and year it was released), experimental variety to increase variability</i>
1	Raw material characteristics <i>for product quality (agronomic, post-harvest)</i>							
2	Processing characteristics <i>of raw material for the product quality during processing (technological, physicochemical)</i>							
3	Characteristics of raw final product <i>To look at</i> <i>To touch</i> <i>To smell</i> <i>To taste</i> <i>Texture in mouth</i>							
4	Characteristics of cooked/ready to eat final product (sensory) <i>To look at</i> <i>To touch</i> <i>To smell</i> <i>To taste</i> <i>Texture in mouth</i>							

In the supportive text, write a summary description of the characteristics that were mentioned by the respondents by gender, region, and other important factors of social difference (e.g. ethnicity, age). What were the types of characteristics that were important for women, men and other groups?

Compare the findings to the FGD responses. What is similar and what is different? Why may there be differences? You can summarise the characteristics mentioned in the FGD by sex and region in tables, and compare to the II. The FGD may also reveal very important information about why these characteristics are important for certain people, or a richer description of the characteristics. These can be used to add detail to this section.

Importantly, you may also want to add a paragraph about your assessment of what characteristics are important based on the constraints, access to resources etc., that farmers and processors experience. Just make sure that you add that this is your opinion and what evidence it is based on. Add quotes to illustrate findings.

This assessment is very important, as it will help guide the work of biochemists, and eventually, what characteristics are added into new varieties. Therefore if there are particular characteristics that are important for specific groups, such as women or an ethnic minority, please highlight this in the text so we ensure that different needs are reflected in our RTBfoods work.

Relevant questions are:

Raw Material (Crop for the product)

II questions:

***In your opinion, what variety(ies) give the highest quality [product under study]? Why? II Q19.**

***If you were to purchase the crop on the market to make the product, how do you recognise and perceive a good crop variety for making a high-quality [product]? By looking at it, by touching, smelling or by tasting it? Rank in order of importance 1=most important. Note for use for pairwise ranking exercise. II Q20.**

What are characteristics of a variety of the crop that give a poor quality [product under study] so that you would not use or buy it? II Q21.

FGD questions:

***Thinking about when you harvest the crop or purchase the crop on the market to make the product, how do you recognise when the crop will make a good, high quality [product under study]? What are the characteristics? Rank in order of importance 1=most important. Note for use for pairwise ranking exercise. FGD Q10.**

***How do you recognise a less preferred variety for the [product under study]? What are the characteristics? Has your community experienced this before? Please describe. FGD Q11.**

Processing (revise as applicable to your product)

II questions:

***Thinking about when you process the [crop], what would be the characteristics that show it has good processing-ability into [product]? Rank in order of importance 1=most important. Note for use for pairwise ranking exercise. II Q23.**

***When buying or selling the product (after processing the product), what are the essential and most important characteristics required for a high quality product? By looking at it, by touching, smelling or by tasting it? Rank in order of importance 1=most important. Note for use for pairwise ranking exercise. II Q24.**

What are the quality characteristics that would influence, your decision or a customer's decision, not to buy or use the [product under study]? Why? II Q25

Pairwise for characteristics (see appendix A). Facilitator to collect the most important top six characteristics from Q20, 23, Q25.

FGD questions:

***Thinking about when you process the [crop], what would be the characteristics that show it has good processing-ability into [product] at each stage of processing? Rank in order of importance 1=most important. Note for use for pairwise ranking exercise. FGD Q14.**

Pairwise for raw material and processing characteristics (see appendix A). Facilitator to collect the community's most important top six characteristics from Q10 and Q14. (FGD Q15).

Final product (raw or ready to eat final product) characteristics

II questions:

***At home, when preparing the [product under study] (cooking into a paste, boiling, adding water, ingredients etc.), what are the characteristics of the product required? Probe: sensory characteristics – texture, appearance, taste, smell etc. II Q27.**

***Describe the characteristics of a high-quality end [product] prior to consumption, just by looking at or touching it. Rank in order of importance – or use pairwise ranking exercise for final product characteristics. II Q28**

II Q28.1 When you eat the [product under study]? What are the characteristics of a high quality product in the mouth and how do you evaluate it? Taste, texture in the mouth, aroma etc., depending on the consumption form? II Q29.

Pairwise for final product (see appendix A). Facilitator to collect the community's most important top six characteristics from II Q27, 28, 29.

FGD questions:

***What is a highquality final [product]? What are the characteristics? Rank in order of importance. Note for use for pairwise ranking exercise. FGD Q17.**

Pairwise for final product characteristics (see appendix A). Facilitator to collect the community's most important top six characteristics from Q17. (FGD Q18).

Conclusion

Provide bullet points or text on important findings and their implications for WP2 and breeders.

8.3. Findings: market study

Note: this template can be used for reporting for the rural, town and urban level market interviews. As the interviews at different levels are completed, add rows to tables and text to show the analysis.

Aggregation and presentation of the data will depend on the type of data you have obtained – for example, individual interviews or focus groups with traders. The guidance attempts to address generally, but if there are any questions, contact the coordination team.

Points to consider when analysing the data:

- Analyse all replies obtained (using different colours, e.g. (red for priority information), and green and blue for other information)
- Ensure no data are discarded
- As much as possible, analyse information obtained from female and male traders (including a table reflecting different replies – see below)
- Support analysis with quotes or verbatim text.

Sample information

Background information on sample MI Q1-14

Prepare a summary table with background information on the sample, as in the table below. If this is already supplied in the methodology section, then cross refer.

Provide additional information on certain questions where the data are available (depending on version of the questionnaire used). This may include household size (e.g. individual interviewed, or average size of households of members in trader association), quality of road (e.g. is it tarmacked, does it have potholes, and state of road during the rainy season), or crops and products traded. Provide additional qualitative information as much as possible.

Table 32: Background information on sample (MI Q1-14)

Interview	001	002	003	004
Gender				
Age (profile)				
Ethnicity				
Household size				
Level of education				
Ownership of means of transportation (If yes, type)				
Ownership of means of communication (If yes, type)				
Road to nearest town is good (Y/N)				

Interview	001	002	003	004
Distance to market from the home (in km)				
Marketing experience (years)				
Main occupation (Specify)				
Crops person is dealing with (indicate main crops or products)				

The value chain

*What are the major locations where the [crop] is grown and marketed? (MI Q15)

Draw value chain map for the crop and product for the country. Show, from a marketing point of view, where the main areas of production, processing, trading, and consumption are located in the country and how they are connected.

In text, summarise the information from the interviews or FGD in a table at the rural, town and urban levels, as below. Additional information may be added from the SOK, but also key informants, administration, reports/books, or statistics. Ensure that the information is relatively up-to-date (i.e. not more than 5 years old), in particular as far as statistics are concerned.

What is the estimated proportion (percentage) of the crop kept by the farmer for home consumption and what is sold by farmers, and to which markets in typical month in wet and dry seasons (MI Q16) in:

- Fresh form
- Processed form: [product]
- Processed form: other products from the crop

And

What is the estimated proportion (percentage) of the crop consumed in urban areas around the market where you are situated: Fresh form, Processed form: [what product], Processed form: alternative products from the crop. (MI Q17)

Summarise the responses from the respondents in the table below. There may be different responses (e.g. some people saying 10% and others 50%). If this is the case, put the range in the table below. If it is difficult to establish the percentages then try to do scoring, using for example 10 stones representing the total annual crop, and then score according to how the crop has been used. If that also provides difficult, then do ranking of the responses.

Table 33: Proportion (%) of crop used in fresh and processed forms (MI Q16)

	Crop use (home consumption vs sales)	Region X Percentage (%)	Region Y Percentage (%)
Rural level	Home consumption		
	Sold in fresh form		
	Sold in processed form [product]		
	Sold in processed form [other products]		

	Crop use (home consumption vs sales)	Region X Percentage (%)	Region Y Percentage (%)
Town level	Home consumption		
	Sold in fresh form		
	Sold in processed form [product]		
	Sold in processed form [other products]		
Urban level	Home consumption		
	Sold in fresh form		
	Sold in processed form [product]		
	Sold in processed form [other products]		

***What are the major locations where the [product] is processed and marketed? MI Q18**

Indicate for different parts of the country where the crop is predominantly processed. Also, explain to what extent it is processed at community / village level. If appropriate, prepare table for different parts of the country. Establish link with above or document on the same map (e.g. Q9, first questionnaire, Q16, revised Nigeria).

***What are the main consumer groups associated with the [product]? (at the applicable level, i.e. community, processing site, city)? MI Q19**

***What are the demographics of the customer groups / buyers of [product]? e.g. female customers, male customers, youth, high-end restaurants, wealth categories) MI Q30**

***What are these customers demanding (e.g. what crop characteristics are they interested in?) MI Q31**

Summarise the responses for each of the questions in the table below, by the demand segment or 'level' of the demand segment.

Draw on interviews carried out during the survey at village, town, and city levels).

Table 34: Customer groups buying the product

Level and/or demand segment	Demographics of the customer groups / buyers of [product]	Description of what are these customers demanding
Community level:		
Processing site:		
Wholesale market:		
Retail market :		

Characteristics for a high-quality crop

Ranking of characteristics for a high-quality crop per demand segment (MI 32)

As explained in the [Step 2 Priority Data Guidance section 7](#) for characteristics, apply weights for the characteristics of a high-quality crop based on their ranking:

- It is important that all characteristics are listed, to analyse the responses, not just top three. Apply weights accordingly. If you are ranking 6 characteristics, multiple the most important characteristic by 6, the 2nd most important by 5, the third by 4, etc.
- For each characteristic, add up the total 'points' from men and women to get a final score. Sort the characteristics by descending final scores.

In the column following the characteristic, include the indicator/criteria the respondents used for ranking the characteristics and the demand segment they are important for. Add additional qualitative information after the table as far as available.

Table 35: Characteristics of a high-quality crop

Rank	Characteristic	Indicators used for ranking crop characteristics and demand segment they are important for
1		
2		
3		
4		
5		
6		
7		

Proportion of the crop consumed and sold

*Proportion of the product sold to different customer groups (in percentages) (MI Q20)

This should be based on discussions with the traders.

Summarise the responses from the traders in the table below. There may be different responses (e.g. some people saying 10% and others 50%). If this is the case, put the range in the table below or make a column for each of the responses.

Add additional qualitative information after the table as far as available. If necessary, expand the table for different parts of the country, e.g. North and South of the country. Adapt the table if needed for the crop (e.g. cassava or yam) and the product (gari/eba or boiled yam), or prepare two tables distinguishing between crop and product.

Table 36: Proportion (%) of the crop consumed and sold by farmers

Customer groups	Region X Percentage (%)		Region Y Percentage (%)	
	Consumed	Sold	Consumed	Sold
Rural consumers – farmers keeping the crop for home consumption				
Rural consumers – purchasing the crop for home consumption				
Household consumers in urban areas / cities				
Institutions such as hospitals or schools				
Restaurants				
Food vendors				
Others (specify)				

Consumption patterns of different consumer groups

Consumption patterns of different consumer groups (MI Q21)

Summarise the consumption patterns in a table based on discussions with the traders and frequency of replies. Add additional qualitative information after the table as far as available. This is based on the question whether all consumers have the same consumption patterns or if there are differences? (E.g. rural people may consume more than urban consumers, or in a different form).

Table 37 Consumption patterns of different consumer groups

Consumer groups (adapt as necessary)	Rural areas	Urban areas
Men		
Women		
Youth		

Variations of the product

What are the different variations of [the product]? e.g. varieties, processing key steps, processing parameters, quality differences of the pre-processed and the final products. The information is based on frequency of replies. (MI Q22)

Summarise the variations of the product as described in the interviews. Indicate if the variations are linked to crop varieties, processing parameters, and if these results in quality differences of the pre-processed and the final products. Highlight differences by region, ethnicity or gender. Add quotes to illustrate.

What are the different varieties/types of the crop demanded? MI Q33

Rate product varieties/types in order of importance. Information will be aggregated according to frequency of replies. Also explain reasons in using a certain variety; for example whether it is used for processing, or something else? This should be based on discussions with the traders. Add additional qualitative information after the table as far as available and quotes to illustrate.

Distinguish if information has been obtained from female or male traders and whether it applies to female, male or youth customer groups.

Table 38 Varieties/types of crop demanded

Variety / types of the crop demanded	Order of importance	Reasons why this variety is demanded

Quantities of the crop and product traded

Quantities of the crop and product traded (during a year; specify from when to when) (MI Q23)

This should be based on discussions with the traders.

Refer to secondary data or statistics to supplement. Also, in addition to traders, consult with market managers to obtain information.

Summarise the responses from the respondents in the table below. There may be different responses (e.g. some people saying 10% and others 50%). If this is the case, put the range in the table below or make a column for each of the responses.

Add additional qualitative information after the table as far as available. If necessary, expand the table for different parts of the country, e.g. North and South of the country. Adapt the table if needed for the crop (e.g. cassava or yam) and the product (gari/eba or boiled yam), or prepare two tables distinguishing between crop and product.

Table 39: Quantities traded (tonnes) as fresh and processed by region

	Region X Quantities traded (tonnes)	Region Y Quantities traded (tonnes)
Fresh crop		
Processed [product]		
Processed [other products]		

What is the daily throughput/amount traded daily in market of the product (in kg or tonnes), taking seasonality into account? This can only be done for markets where the trader(s) are based. (MI Q24)

Based on responses, make a table for each market with the estimates of the daily throughput of crop and product. Indicate the sources of information.

Table 40 Daily throughput/amount traded daily (kg or tonnes) in xx Market (specify which market)

Part of the year	Quantities of crop (tonnes)	Quantities of product (tonnes)
Wet season		
Dry season		
Planting time		
Festive periods		
Time of school fees		
Other (specify)		

Transport, storage, and means of selling the crop

Transport, storage, and means of selling the crop (MI Q25)

*** During crop/product transportation, storage and sale, what are important characteristics that might affect the product? (MI Q26)**

This should be based on discussions with the traders. Summarise information from the two questions in a table, such as the one below. Indicate if there are differences in opinion between the respondents.

Add additional qualitative information after the table as far as available. Try to establish differences according to gender, socio-economic status, age, region, or other factors. Specify to what extent the information is related to crop or final product (for example, transportation of yam tubers or boiled yam, and how certain crop characteristics affect end-product.)

Also, distinguish whether replies have been provided by female or male traders, and whether different consumer groups are affected differently. Frequency of replies is important, but also take into account whether the information has been obtained from a large-scale wholesale trader, or a smaller-scale aggregator, or retailer.

If needed prepare a second table, distinguishing between crop and final product.

Table 41 Means of transportations Daily throughput/amount traded daily (kg or tonnes) in xx Market (specify which market)

	Means	Important characteristics of the crop associated with product transportation, storage and sale OR Important characteristics that may affect the product
Transportation	e.g. truck e.g. bicycle	
Storage	e.g. in hut under tarp e.g. in sealed container	
Means and forms of sales		

Drivers of change

Drivers of change in terms of demand for crop and final product (MI Q28)

This should be based on discussions with the traders. Summarise the responses in a table, such as the one below. Indicate frequency of replies and provide indication of where information was obtained from a large-scale wholesale trader, or a smaller-scale aggregator, or retailer.

Add additional qualitative information after the table as far as available. Distinguish whether replies have been provided by female or male traders, and whether different consumer groups are affected differently.

	Crop	End-product
Demand in general	e.g. increased in the last five years due to government promotion (wholesaler trader Cotonou, market leader Ikpele)	
Changes as far as major characteristics of the crop or end-product are concerned		

Trend lines for consumption

Trend lines for consumption trends per main demand/customer segment (MI Q29)

This should be based on discussions with the traders (e.g. wholesalers, or market managers) for last 10 years, and for coming 10 years. Use the year of 2018 as point of reference (e.g. 100%). Prepare trend lines for different customer segments, for example rural and urban consumers and within these groups for female, male, and youth customers.

Economics of the product

Economics of the product, in terms of (MI Q27):

- d) price, by season, and trends over the last 10 years; for budget calculations try to use average prices and costs for the last 4 months
- e) cost elements in the value chain per kg/ tonne? (e.g. transport, packaging, taxes, loading, off-loading, stallage rents etc.)
- f) profitability of the crop? (i.e. gross income minus costs, or % of profit margin as a share of gross income); this can be calculated after the interview has taken place, e.g. during the recap of the session or in the office. Also, if the information for this question is available in another, recently conducted study, then it's better to extract it from there and quote the source

Given that this exercise can be quite time consuming, it is sufficient to prepare one case study for each, village level, town level, and city level (i.e. 3 case studies per crop in total), based on primary or secondary data. This case study will summarise the responses to the questions and highlight any differences in opinion.

If there are additional case studies for the end-product (e.g. selling of gari or boiled yam, then these should also be prepared).

Additional information

Add here any other information which is available from the discussions or from secondary literature and has not yet been covered above.

Conclusion

Provide bullet points or text on important findings and their implications for biochemists and breeders

9. APPENDICES

9.1. Appendix A: Pairwise ranking

Pairwise ranking can be used for the FGD or II, even MIs. It has been found to be more reliable than standard ranking exercises as it provides participants with a specific choice between two characteristics.

Instructions

- Conduct one pairwise ranking exercise at each of the stages in the food chain (raw material, processing/preparation, consuming).
- Write each characteristic on a card with a symbol of that characteristic so respondents can recognise and identify what each symbol stands for
- Prepare a table in your notebook or on poster paper in the format below that lists the characteristics in the top row and left hand column in the same order.
- Ask the participant to compare one of the characteristics with others and indicate what they prefer out of the two characteristics until all the characteristics are complete. It is best to do this exercise at an individual level, but if time is a problem, participants can vote and the majority answer can be accepted, with the team noting differences in opinions between the group.
- Start with the first characteristic in the left hand column (e.g. colour in the example below), and compare to the first characteristics in the top row that isn't the same (e.g. weight in the example below). Use the two cards to ask the group which one is more important. Note in the table which characteristic the group selects (e.g. colour in the example below). Then compare the first characteristics in the left hand column to the next characteristic in the row (e.g. smell/taste in the example below) until all the characteristics in the row are complete. Then move to the second characteristic listed in the left hand column and complete as above. You do not need to complete the boxes that are blacked-out as they have already been asked.

Table A1. Pairwise Ranking of sensory characteristic – final product after processing (example of gari)

Sensory characteristics	Colour	Weight	Smell/Taste	Sourness	Presence of strands
Colour		C	C	C	C
Weight					
Smell/Taste					
Sourness					
Presence of strands					

*sensory characteristics with most appearance (frequency) become first, second and so on.

9.2. Appendix B: Transect Walks

Adapted from INTERCOOPERATION 2005; ZEEUW and WILBERS 2004

A Transect Walk (TW) is a systematic walk undertaken by the research team along a defined path across a community, accompanied by local people. The walk usually has a particular emphasis; in this case it would be on production, processing and food preparation practices, with a keen eye on gender differences. For example, this method would be useful to discuss crop quality characteristics on farm, such as during harvesting the crop from the field or while it is being prepared near the home and who the work is being conducted by.

Overall, The TW provides an opportunity for the team to observe, ask, listen and look and to compare differences within the community. It also helps to triangulate data collected through other tools.

The TW is normally done at the start of fieldwork, usually after community introductions with leadership, led by local people as experts.

The research team should request that representatives of the most important stakeholder groups accompany them on the walk, should they all agree to walk the distance and share their observations. Ensure that women leaders and stakeholders are included and given opportunities to participate in the process.

Discuss with the representatives what route they could take which would cover the greatest diversity of different types of wealth categories and environments in the community. Maps or aerial photographs (e.g. from Google Earth) may be of use, if available, but are certainly not essential. For monitoring and evaluation purposes, it is important that the route of the transect walk can be easily found again. Therefore it is important to document the route. Use GPS (such as on a smartphone) if possible.

During the walk, the research team should discuss and note any points of relevance to be analysed with the data collected by other means. Furthermore, the team members can informally interview any people met during the walk to get their views.

Decide with the community representatives what are the major points of information that the walk will focus on. It is best to limit these to five or six points to minimise confusion and help the research team take notes.

The transect walk may take two to three hours. After the walk you produce and analyse a transect diagram, and ensure that a full discussion occurs with local analysts. In large areas where a transect walk would take longer to produce (for example, four or more hours), it might be sensible to divide it up into smaller transect segments that can be combined later.

Please ensure you obtain informed consent from individuals..

Lastly, ensure you have the appropriate footwear and clothing!

9.3. Appendix C: Information and consent

[Name of institution] are currently conducting an introductory study on root, tuber and banana preferences to inform breeding programmes in a project entitled RTBfoods. The aim of the project is to identify the preferred characteristics of [product] in [country] among producers, processors, consumers, and other user groups (what makes a good product). This interview is part of an initial study interviewing key individuals to gain a better understanding of preferences for the product, product markets, and the context of these products in people's lives. You were selected for a key informant interview based on your experience and expertise regarding our study. The interview will take approximately one hour and is entirely voluntary.

Importantly, we would also like to identify if preferences for certain product characteristics vary geographically and according to processing methods, gender, age, socio-economic status, ethnicity or other factors.

Taking part in this research study is completely voluntary. You may choose not to take part at all. If you decide to be in this study, you may stop participating at any time. You are not under any obligation to answer any questions that you are not comfortable with. Furthermore, because you were selected as for this interview due to your expertise, we would like to include your name and institution on a list of key informants interviewed. However, please let us know if you would like your name to be excluded.

We ensure that all of the information collected in RTBfoods project will be securely managed and stored. We are collecting all the responses from everyone we speak to. All of the information collected during our discussion will not include your name or location and so you cannot be identified.

Please complete the information below if you consent to participating in the interview.

Do you agree to take part in this study?		YES / NO
Signed:		Date:/...../.....
If signed is not possible	Verbal consent:	YES / NO
	Witness's name in block letters:	
Participant's name in block letters:		
Signature of investigator:		Date:/...../.....

This Project is Supervised by:
Contact Details (including address/email/ telephone number):

9.4. Appendix D: Information et Consentement

Dans le cadre du projet intitulé RTBfoods, le [Nom de l'Institution] conduit actuellement une étude exploratoire sur les préférences des utilisateurs concernant les racines, tubercules et bananes à cuire pour améliorer les programmes de sélection variétale. Le but de ce projet est de caractériser les préférences des producteurs, transformateurs, consommateurs et d'autres groupes d'utilisateurs de [produit concerné] au [pays concerné] (ce qui fait un bon produit). Cette enquête est partie intégrante d'une étude initiale interrogeant des acteurs clés pour acquérir une meilleure compréhension des préférences concernant un produit, ses dérivés et le contexte de ces derniers dans le quotidien des populations. Vous avez été sélectionné en tant qu'acteur clé pour une enquête relative à votre expérience et votre expertise concernant notre étude. L'entretien dure approximativement **one hour** et est totalement volontaire.

Il est à noter que nous souhaitons également identifier si les préférences pour certaines caractéristiques d'un produit varient en fonction du lieu, des méthodes de transformation, du sexe, de l'âge, du statut socio-économique et ethnique, ou d'autres facteurs.

La participation à cette recherche est totalement volontaire. Vous pouvez choisir de ne pas participer du tout. Si vous décidez de prendre part à cette étude, vous pouvez mettre fin à votre participation à tout moment. Vous n'êtes soumis à aucune obligation pour répondre aux questions avec lesquelles vous n'êtes pas à l'aise. De plus, parce que vous avez été sélectionné en raison de votre expertise, nous souhaiterions pouvoir inclure votre nom et votre institution dans la liste des informateurs clés enquêtés. Cependant, si vous souhaitez que votre nom en soit exclu, n'hésitez pas à nous le faire savoir.

Nous vous assurons que tout l'information collectée dans le cadre du projet RTBfoods sera gérée et conservée de façon sécurisée. Nous collectons les réponses de toutes les personnes avec qui nous nous entretenons. L'information collectée durant les discussions inclura ni votre nom ni votre localité. De cette façon, vous ne pouvez pas être identifié.

Veuillez, s'il vous plaît, remplir le formulaire ci-joint si vous consentez à participer à cette enquête.

Consentez-vous à participer à cette étude ?		OUI / NON
Signature:		Date:/...../.....
If signed is not possible	Consentement oral :	OUI / NON
	Nom du témoin du consentement (en caractères d'imprimerie) :	
Nom du participant (en caractères d'imprimerie) :		
Signature de l'enquêteur:		Date:/...../.....
Ce projet est coordonné par :		
Contact (adresse/email/numéro de téléphone) :		



Institution: Cirad – UMR QualiSud

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